

KEVIN MARQUEZ JOHNSON

Curriculum Vitae

Department of Ecology, Evolution and Marine Biology, University of California, Santa Barbara, CA 93106-9620
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EDUCATION

- 2012-present University of California, Santa Barbara
Ph.D. Candidate
Department of Ecology, Evolution and Marine Biology
Advisor: Prof. Gretchen E. Hofmann
Thesis: “*Investigating the molecular response of the marine calcifying pteropod, *Limacina helicina*, to ocean acidification and ocean warming*”
- 2009-2012 California State University, Monterey Bay
Bachelor of Science, Biology
Distinction in Major

FELLOWSHIPS AND AWARDS

- 2016-2017 UCSB Graduate Division NSF Extension Fellowship (\$24,000)
2016 Charles A. Storke Fellowship, EEMB, UC Santa Barbara (\$1,250)
2013-2016 National Science Foundation – Graduate Research Fellowship
2012-2013 EEMB Graduate Fellowship Award, UC Santa Barbara (\$11,000)
2010 Louis Stokes Alliances for Minority Participation (LSAMP) Community College Merit Award (\$1,000)

PROFESSIONAL EXPERIENCE

- 2016 Undergraduate Mentor, Mentee: Jacob Knauss. Project: Assessing trans-generational plasticity using DNA methylation patterns in developing urchin larvae (*Strongylocentrotus purpuratus*).
- 2014 Teaching Assistant, Introductory Biology Laboratory, *University of California, Santa Barbara*.
- 2014 Co-organizer, 10th Annual Graduate Student Symposium, *University of California, Santa Barbara, EEMB Dept.*
- 2013 Teaching Assistant, Introductory Biology Laboratory, *University of California, Santa Barbara*.
- 2013 Graduate Student Researcher, Prof. Gretchen E. Hofmann, *University of California, Santa Barbara*.
- 2012 Co-instructor, Research 301, *California State University, Monterey Bay*.
- 2010-2012 Undergraduate Researcher,
Advisor: Dr. Aparna Sreenivasan, *California State University, Monterey Bay*.

GRANTS IN SUPPORT OF RESEARCH

- 2016 Ellen Schamberg Burley Graduate Scholarship (\$500)
2016 Carl Storm Underrepresented Minority (CSURM) Fellowship (\$600)
2012 California State University Louis Stokes Alliance for Minority Participation (CSU-LSAMP) Scholar award (\$1,500)
2011 Barbara Baldock and Phillip Butler UROC Research Scholarship (\$2,000)
2011 CSU Council on Ocean Affairs, Science and Technology (COAST) Student Award for Marine Science Research (\$1,000)
201 Travel Award, Emerging Researchers National (ERN) Conference in Science, Technology, Engineering and Mathematics (STEM)
2011 Beta Beta Beta Research Scholarship (\$500)
2011 CSU Council on Ocean Affairs, Science and Technology (COAST) Student Award for Marine Science Research (\$500)
2011 California State University Louis Stokes Alliance for Minority Participation (CSU-LSAMP) Scholar award (\$500)
2010 Beta Beta Beta Research Scholarship (\$500)

PUBLICATIONS

Johnson, KM and GE Hofmann. 2016. A transcriptome resource for the Antarctic pteropod *Limacina helicina antarctica*. *Marine Genomics*, 28:25-28. [doi:10.1016/j.margen.2016.04.002](https://doi.org/10.1016/j.margen.2016.04.002)

MANUSCRIPTS IN REVIEW

Johnson, KM, U Hoshijima, CS Sugano, AT Nguyen, and GE Hofmann. Shell dissolution observed in *Limacina helicina antarctica* from the Ross Sea, Antarctica: paired shell characteristics and in situ seawater chemistry. *Biogeosciences Discussions (in review)*. [doi:10.5194/bg-2016-467](https://doi.org/10.5194/bg-2016-467)

MANUSCRIPTS IN PREPARATION

Johnson, KM, Wong JM, and GE Hofmann. Seasonal transcriptome profiling in *Limacina helicina antarctica*. *Molecular Ecology* (expected submission: 1/2017).

Johnson, KM, and GE Hofmann. Molecular response to ocean acidification and warming in the Antarctic pteropod *Limacina helicina antarctica*. *BMC Genomics* (expected submission: 1/2017).

Hofmann, GE, S Bachhuber, CS Sugano, JM Wong, **KM Johnson**, and U Hoshijima. Mechanisms of transgenerational effects in purple sea urchins, *S. purpuratus*: Conditioning of adults to variable pCO₂ alters features of the progeny. *Science Communications* (expected submission: 3/2017).

PRESENTATIONS OF RESEARCH

- 2016 *Bachhuber, S, JM Wong, U Hoshijima, **KM Johnson**, CS Sugano, and GE Hofmann. *Transgenerational effects of pH and temperature on early stage purple sea urchins, S. purpuratus*. 2016 Western Society for Naturalists Annual Meeting, poster.

- 2016 **Johnson, KM** and GE Hofmann. *De novo transcriptome of the Antarctic pteropod *Limacina helicina antarctica**. Ocean Global Change Biology, Gordon Research Conference, poster.
- 2016 **Johnson, KM** and GE Hofmann. *De Novo Transcriptome of the Antarctic Pteropod *Limacina helicina antarctica**. Ocean Global Change Biology, Gordon Research Conference, Invited Flash Talk.
- 2016 *Knauss, J, **KM Johnson**, and GE Hofmann. *Phenotypic plasticity of *Strongylocentrotus purpuratus* in response to ocean acidification*. 2016 UCSB Undergraduate Research Colloquium. Santa Barbara CA, poster.
- 2016 Hofmann, GE, **KM Johnson**, U Hoshijima, and JM Wong. *Antarctic pteropods (*Limacina helicina antarctica*) as a sentinel organism for the impact of ocean acidification*. 4th International Symposium on the Ocean in a High-CO₂ World, Hobart, Tasmania, Australia, poster.
- 2015 **Johnson, KM**, U Hoshijima, JM Wong, CS Sugano, and GE Hofmann. *Pteropods, little marine snails, as indicators of global change*. Public Lecture, Sunday Night Science Lecture at McMurdo Station, Antarctica.
- 2014 **Johnson, KM** and GE Hofmann. *Epigenetic approaches to investigate local adaptation in marine invertebrates*. Ocean Sciences Meeting, Honolulu, Hawaii, poster.
- 2013 **Johnson, KM** and GE Hofmann. *Investigating the role of epigenetics in local adaptation and phenotypic plasticity*. 2013 Western Society for Naturalists Annual Meeting, poster.
- 2013 **Johnson, KM** and GE Hofmann. *In search of marine local adaptation- A transcriptomic approach*. 9th Annual UCSB EEMB Graduate Student Symposium, oral presentation.
- 2011 **Johnson, KM**, E Stanfield, A Sreenivasan, M Los Huertos. *A comparison of cyanobacterial abundance and potential toxicity in two California coastal lakes*. California State University State Research Competition, 2nd place oral presentation.
- 2011 **Johnson, KM**, E Stanfield, A Sreenivasan, M Los Huertos. *A comparison of cyanobacterial abundance and potential toxicity in two California coastal lakes*. AAAS Emerging Researchers National Conference in STEM, 1st place, poster.
- * Student-first author presentation

FIELD RESEARCH

- 2016 Channel Islands Research Cruise for Acidification Studies (CIRCAS III); NOAA ship R/V Shearwater (1 day); PI: Professor Gretchen Hofmann.
- 2016 2016 West Coast Ocean Acidification Cruise (NOAA/PMEL); (May 21st-June 7th) NOAA ship Ronald H. Brown; Chief Scientist: Richard A. Feely.
- 2015 Grantee, NSF United States Antarctic Program (USAP); McMurdo Station, Antarctica (August-December). PI: Professor Gretchen Hofmann.
- 2015 Channel Islands Research Cruise for Acidification Studies (CIRCAS II); NOAA ship R/V Shearwater (2 days); PI: Professor Gretchen Hofmann.
- 2014 Grantee, NSF United States Antarctic Program (USAP); McMurdo Station, Antarctica (October-December). PI: Professor Gretchen Hofmann.
- 2014 Channel Islands Research Cruise for Acidification Studies (CIRCAS); NOAA ship R/V Shearwater (5 days); PI: Professor Gretchen Hofmann.

RELEVANT GRADUATE COURSEWORK

- 2014 Environmental Genomics Summer Course, Mount Desert Island Biological Laboratories.

2013 Bioinformatics Short Course, Genome Center and Bioinformatics Core Facility, UC Davis.

OUTREACH AND PUBLIC SERVICE

2016 Educational Outreach with the Quasars to Sea Stars high school science education and mentorship program. Completed a day cruise onboard the NOAA ship R/V Shearwater with students and teachers.

2016 Research Mentor, I mentored Jacob Knauss through developing a DNA methylation sensitive polymorphism assay for use with the purple sea urchin *Strongylocentrotus purpuratus*. We used this assay to measure trans-generational DNA methylation patterns.

2016 Guest Lecturer, Exciting Developments in Biology Research (INT 94 ES), UC Santa Barbara, Santa Barbara, CA.

2012 Treasurer, Beta Beta Beta Honors Society, CSU Monterey Bay.

2010-2011 Mentor, Recruitment in Science Education (CSUMB).

ADDITIONAL SKILLS

Laboratory: Next-Generation library prep, Scanning electron microscopy (SEM); Methylation sensitive amplification polymorphism assay; pH spectrophotometry; total alkalinity, chemical isolation of macromolecules (protein, DNA, and RNA); qPCR; cDNA microarrays; BCA protein assays; DNA methylation-sensitive polymorphism assay;

Computer: Command line, Python, and R statistics package

REFERENCES

Professor Gretchen E. Hofmann (primary advisor)
Department of Ecology, Evolution and Marine Biology
University of California, Santa Barbara, CA 93106
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Professor Kathy Foltz
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