

Sevan Esaian

Department of Ecology, Evolution, and Marine Biology
University of California, Santa Barbara
Moeller and Wilbanks Labs
email: sevan.esaian@lifesci.ucsb.edu

EDUCATION

August 2018 – Present	University of California, Santa Barbara PhD in Ecology, Evolution, and Marine Biology (Microbial and Quantitative Ecology)
August 2016 – July 2018	California State University, Los Angeles MSc in Biology (Avian Ecology and Conservation)
August 2016 – May 2018	California State University, Los Angeles Geographic Information Systems Certificate
Sept. 2011 – June 2016	California State University, Los Angeles BS in Biology (Molecular and Developmental Biology)

PUBLICATIONS

Roellig D, Tan-Cabugao J, **Esaian S**, Bronner ME. 2017. Dynamic transcriptional signature and cell fate analysis reveals plasticity of individual neural plate border cells. *eLife*.

RESEARCH EXPERIENCE

August 2018 – Present
PhD Student – Department of Ecology, Evolution, and Marine Biology – UC Santa Barbara
Research Advisors: Dr. Holly Moeller and Dr. Lizzy Wilbanks
Project: *Synergistic effects of environmental factors on the microbial community of *Macrocystis pyrifera* (giant kelp)*.

- Developing independent research questions and projects associated with the SBC LTER to understand microbial community dynamics of giant kelp.

August 2016 – July 2018
MSc Student – Department of Biological Sciences – CSU, Los Angeles
Research Advisor: Dr. Eric M. Wood
Project: *The importance of the Los Angeles urban forest as habitat for migratory and resident birds*

- Independent field research on landscape ecology and bird-tree interactions in the LA urban forest.
- Designed study and conducted: bird point counts, foraging/behavioral observations, and measurement/ mapping of public street trees.
- Analyzed remotely sensed and field obtained data using statistical models (GLMs, GLMM's, and GAMs) with software's R and ArcGIS.
- Trained undergraduate field assistants in data collection techniques.

March 2015 – September 2015

Division of Biology and Biological Engineering,
California Institute of Technology, Pasadena, CA

Research Assistant, Embryonic Developmental Biology

Research Advisors: Dr. Marianne Bronner and Dr. Daniela Roellig

Project: *Transcriptional signature and cell fate analysis of neural plate border cells*

- Developed and applied molecular techniques for tracking migratory neural crest cells in developing chicken embryos.
- Immunohistochemistry and fluorescent *in situ* hybridization to analyze gene regulatory networks of the neural plate border in early development of chicken embryos.
- Applied high resolution microscopy techniques including fluorescent and confocal microscopes to track *in vivo* migratory neural crest cells.

March 2013 – March 2015

BSc Student – Department of Biological Sciences – CSU, Los Angeles

Research Advisor: Dr. Sandra B. Sharp

Project: *Analyzing combinatorial effects of MyoD binding upstream and downstream of the Acta1 gene in myogenic C2C12 cells.*

- Managed logistics for the lab including: cell culture maintenance, inventory, ordering, and technical support for other student researchers.
- Applied molecular cloning techniques to analyze muscle specific transcription factor expression and genetic regulation in C2C12 cells.
- Designed cloning strategy and transfection experiments independently and with collaborators.
- Trained students in aseptic and molecular techniques, cell culture maintenance, and cell imaging.

FELLOWSHIPS / AWARDS

Fellowships

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| 2016 – 2018 | Louis Stokes Alliance for Minority Participation Bridges to the Doctorate Fellowship (\$32,000 per year + \$12,000 tuition + \$2,500 research supplies + \$2,500 travel award) |
| 2014 – 2016 | Minority Biomedical Research Support – Research Initiative for Scientific Enhancement Undergraduate Fellowship (\$12,000 + \$2,000 research supplies + \$1,000 travel award) |
| 2015 | California Institute for Regenerative Medicine Research Fellowship (\$18,000 + \$7,000 tuition + \$2,000 research supplies) |

Honors & Memberships

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| 2015 | Beta Beta Beta (Tri Beta) Biological Honors Society – California State University, Los Angeles |
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2015 Society for Advancement of Chicanos/Hispanics and Native Americans in Science – California State University, Los Angeles – Chapter Member

Travel Awards

2016 Cornell University Diversity Recruitment Weekend (Department of Ecology and Evolutionary Biology)

2015 Experimental Biology Conference – American Society of Biochemistry and Molecular Biology

PRESENTATIONS

Professional Meetings

Esaian S and Wood EM 2017. *Factors affecting habitat use of birds along a socioeconomic gradient in the Los Angeles urban forest*. AOS – SCO 2017. Michigan State University. Lansing, MI.

Esaian S and Wood EM 2017. *Tree species preferences by migratory birds in the L.A. urban forest: implications for urban biodiversity*. San Diego State University. International Urban Wildlife Conference. San Diego, CA.

Esaian S, Gonzalez C, Vu H, Desalvo G, Wold B, and Sharp SB. 2016. *Constructing Luciferase reporter plasmids to test for combinatorial role of the 5' and 3' MyoD binding regulatory regions of Acta1 gene expression*. Experimental Biology Conference. ASBMB. San Diego, CA.

Esaian S, Gonzalez C, Vu H, Desalvo G, Wold B, and Sharp SB. 2015. *Constructing Luciferase reporter plasmids to test for combinatorial role of the 5' and 3' MyoD binding regulatory regions of Acta1 gene expression*. CSU Biotechnology Symposium. Santa Clara, CA.

Other Presentations

Esaian S, Roellig D, and Bronner M. 2015. *Analyzing transcription factor patterning and capacity of the neural plate border*. University of California, Los Angeles. Lake Arrowhead Research Retreat. Lake Arrowhead, CA.

Esaian S, Gonzalez C, Vu H, Desalvo G, Wold B, and Sharp SB. 2014. *Constuction of Luciferase reporter plasmid to study contribution of 5' and 3' MyoD binding regions to Acta1 gene expression*. Annual Research Symposium. California State University, Los Angeles.

Esaian S, Gonzalez C, Vu H, Desalvo G, Wold B, and Sharp SB. 2013. *Construction and transient transfection of Luciferase reporter plasmids to study contribution of 5' and 3' MyoD binding regions to Acta1 gene expression*. Annual Research Symposium. California State University, Los Angeles.

COMMUNITY AND PROFESSIONAL SERVICE

2013 – 2014

Student Advisement Committee Member – Minorities for Opportunities in Research Experience
California State University, Los Angeles

- Developed and planned events to promote diversity in the scientific research community at CSU – Los Angeles.
- Organized an annual research symposium for MBRS – RISE students where principal investigators spoke to students about their research and prospective graduate programs.

2012 – 2013

Fundraising Chair – Chicanos and Latinos for Community Medicine
California State University, Los Angeles

- Organized community oriented events to promote human health through physician visits, exercise, and public education.
 - Established and coordinated an annual health fair in collaboration with UCLA Dental and Optometry school to offer free health checkups to families from underrepresented communities.
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REFERENCES

Current Research Advisors

Dr. Holly Moeller – UC Santa Barbara – hvmoeller@ucsb.edu

Dr. Lizzy Wilbanks – UC Santa Bara – ewilbanks@ucsb.edu

Former Research Advisors

Dr. Eric M. Wood – CSU, Los Angeles – ericmwood@calstatela.edu – MSc

Dr. Marianne Bronner – CalTech – mbronner@caltech.edu – CIRM Internship

Dr. Sandra Sharp – CSU, Los Angeles – ssharp@calstatela.edu – BSc

Additional Mentors

Dr. Daniela Roellig – CalTech/UFTMP – roellig.daniela@gmail.com

Dr. Nathan Lanning – CSU, Los Angeles – nlannin@calstatela.edu