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jennaekwealor.com

**EDUCATION**

2015-Present **Ph.D. Candidate**

Department of Integrative Biology

University of California, Berkeley (UCB)

Laboratory of Dr. Brent Mishler

2015 **M.S. in Environmental Science, Biology Option**

California State University, Los Angeles (CSULA)

Laboratory of Dr. Kirsten Fisher

2012 **B.S. in Biology, Minor in Chemistry**

Purdue University, Indiana University—Purdue University—Indianapolis (IUPUI)

Laboratory of Dr. Melissa Kacena

2012 **B.A. in Religious Studies**

Indiana University, IUPUI

**Publications** [ORCID 0000-0001-9014-8786]

6. Ekwealor, Jenna T. B.; Clark, Theresa A.; Dautermann, Oliver; Russell, Alexander; Ebrahimi, Sotodeh; Stark, Lloyd R.; Niyogi, Krishna K.; Mishler, Brent D. UV tolerance and sustained non-photochemical quenching in a desert moss. (Submitted to *Plant, Cell & Environment*).

5. Silva, Anderson T.; Gao, Bei; Fisher, Kirsten M.; Mishler, Brent D.; Ekwealor, Jenna T. B.; Stark, Lloyd R.; Li, Xiaoshuang; Zhang, Daoyuan; Bowker, Matthew A.; Brinda, John C.; Deane-Coe, Kirsten K.; Oliver, Melvin J. To dry perchance to live: insights from the genome of the desiccation-tolerant biocrust moss *Syntrichia caninervis*. (Submitted to *The Molecular Plant*).

4. Ekwealor, Jenna T. B.; Fisher, Kirsten M. Life under quartz: Hypolithic mosses in the Mojave Desert. (In Press, *PLOS One*).

3. Baughman, Jenna T.; Payton, Adam C.; Paasch, Amber E.; Fisher, Kirsten M.; McDaniel, Stuart F. Multiple factors influence population sex ratios in the Mojave Desert moss *Syntrichia caninervis*. *American Journal of Botany* 104(5):1-10 (2017), DOI: 10.3732/ajb.1700045

2. Meijome, Tomás E.\*; Baughman, Jenna T.\*; Hooker, R. Adam; Cheng, Ying-Hua; Ciovacco, Wendy A.; Balamohan, Sanjeev A.; Srinivasan, Trishya L.; Chitteti, Brahmananda R.; Eleniste, Pierre P.; Horowitz, Mark C.; Srour, Edward F.; Bruzzaniti, Angela; Fuchs, Robyn K.; Kacena, Melissa A. C-Mpl is expressed on osteoblasts and osteoclasts and is important in regulating skeletal homeostasis. *Journal of Cellular Biochemistry* 117:959-969 (2016), DOI: 10.1002/jcb.25380 \*Contributed equally

1. Eleniste, Pierre P.; Patel, Vruti; Posritong, Sumana; Zero, Odette; Largura, Heather; Cheng, Ying-Hua; Himes, Evan R.; Hamilton, Matthew; Baughman, Jenna; Kacena, Melissa A.; Bruzzaniti, Angela. Pyk2 and megakaryocytes regulate osteoblast differentiation and migration via distinct and overlapping mechanisms. *Journal of Cellular Biochemistry* 9999:1-11 (2015), DOI: 10.1002/jcb.25430

**FELLOWSHIPS & TRAINEESHIPS**

2020Graduate Remote Instruction Innovation Fellowship (UCB)

($5,000)

2015-2020Berkeley Fellowship (UCB)

($86,000 awarded over five years)

2017-2020 Pinto-Fialon Fellowship (UCB)

($25,735 awarded over three years)

2018-2019 Luso-American Education Foundation Scholarship

($1,000)

2015-2017 Environment & Society: Data Sciences for the 21st Century, An NSF Research Traineeship (UCB)

2014-2015 Minority Biomedical Research Support Research Initiative for Scientific Enhancement MS-to-Ph.D. Graduate Research Fellowship (CSULA)

($17,000)

2019-2012 Ronald E. McNair Post-Baccalaureate Achievement Scholar (IUPUI)

**honors & awards**

2016Outstanding Graduate Student Instructor, UCB

2013Tutor of the Month, Tutor Doctor of San Gabriel Valley

2012Rowland A. Sherrill Outstanding Religious Studies Student Award, IUPUI

2012Christine Jakacky Mentor of the Year, IUPUI

201213th Annual IUPUI Top 100 Outstanding Students, IUPUI

201112th Annual IUPUI Top 100 Outstanding Students, IUPUI

**RESEARCH GRANTS**

Current

2020 Department of Integrative Biology Dissertation Award (UCB) ($2,500)

2020 Paul Silva Student Research Grant (California Botanical Society) ($580)

2020 Myrtle Wolf Grant (California Native Plant Society – East Bay Chapter) ($1,400)

Contributions to ongoing funded research

2016-2019 NSF Division of Environmental Biology #163856

Title: Collaborative Research: Dimensions: Desiccation and Diversity in Dryland Mosses

PI: Brent Mishler, UCB

Previous

2019 Department of Integrative Biology Summer Grant (UCB) ($3,500)

2019 California Native Plant Society – Bryophyte Chapter Research Grant ($200)

2019 Sigma Xi Berkeley Chapter Grants-in-Aid-of-Research (UCB) ($200)

2018 Mathias Graduate Student Research Grant (UC Natural Reserve System) ($2,000)

2018 Department of Integrative Biology Summer Research Award (UCB) ($1,750)

2017 Anderson & Crum Field Bryology Award (American Bryological and Lichenological Society) ($750)

2017 Department of Integrative Biology Summer Research Award (UCB) ($1,750)

2016-2019 Department of Integrative Biology Graduate Student Research Allocations Committee Research Award (UCB) ($1,200 over four years)

2014 Evo-Devo-Eco Research Exchange Network Grant (NSF Research Coordination Network) ($3,000)

**CONFERENCE presentations**

Oral Presentations

2019 Biocrust4, North Stradbroke Island, Australia

“UV Tolerance in Mojave Desert Mosses”

2019 Botany 2019, Tucson, AZ, USA

“UV Tolerance in Mojave Desert Mosses”

*Honorable Mention for A. J. Sharp Award*

*ABLS Student Travel Award ($400)*

2019 Bryology 2019, Madrid, Spain

“UV Tolerance in Mojave Desert Mosses”

*UCB Dept. of Integrative Biology Graduate Student Research Allocations Committee Travel Award ($250)*

2018 American Bryological and Lichenological Society Meeting, Nederland, CO, USA

“UV Tolerance in Mojave Desert Mosses”

*ABLS Student Travel Award ($600)*

2017 California Botanical Society Graduate Symposium, Santa Barbara, CA, USA

“Adaptation, facilitation, and refugia in Mojave Desert mosses”

*California Botanical Society Travel Award ($200)*

2016 Biocrust3, Moab, UT, USA

Molecular Frontiers Symposium

“Males of the Mojave Desert moss *Syntrichia caninervis* (Pottiaceae) are rare and shy”

*Biocrust3 Complimentary Registration Award*

2016 Biocrust3, Moab, UT, USA

Early Career Scientists Symposium

“Natural desert terraria: Characterization of hypolithic Mojave Desert moss community”

*Biocrust3 Complimentary Registration Award*

2016 Botany 2016, Savannah, GA, USA

“Natural desert terraria: Characterization of hypolithic Mojave Desert moss community”

*ABLS Student Travel Award ($600)*

2016 Botany 2016, Savannah, GA, USA

“Males of the Mojave Desert moss *Syntrichia caninervis* (Pottiaceae) are rare and shy”

*UCB Dept. of Integrative Biology Graduate Student Research Allocations Committee Travel Award ($250)*

2015 California Botanical Society Graduate Symposium, Claremont, CA, USA

“Natural desert terraria: Characterization of hypolithic Mojave Desert moss community”

*Best Presentation Award, Completed Research Category*

Poster Presentations

2018 International Molecular Moss Science Society Meeting, St. Petersburg, FL, USA

“UV Tolerance in Mojave Desert Soil Mosses”

*Best Student Poster Award*

*iMOSS Trainee Fellowship Award*

2015 California Native Plant Society Conservation Conference, San Jose, CA, USA

“Natural desert terraria: Characterization of hypolithic Mojave Desert moss community”

*Best Student Poster Award*

**DEPARTMENTAL TALKS**

2020 Botany Lunch, University & Jepson Herbaria, UCB

“The photosynthetic effects of the Mojave Desert sun on a biological soil crust moss”

2019 Guest Lecture, Ecosystems of California, UCB

“Evolution of Energetic Trade-Offs in Plant Herbivory Defense”

2019 Guest Lecture, Plant Systematics, UCB

“Introduction to Bryophytes”

2018 Grad Students on Parade Lightning Talk, Botany Lunch, University & Jepson Herbaria, UCB

“Volunteer botanizing in the Mojave National Preserve”

2016 Botany Lunch, University & Jepson Herbaria, UCB

“Sex and survival: The impacts of energetic trade-offs for the Mojave Desert moss *Syntrichia caninervis* (Pottiaceae)”

2015 MORE & LSAMP Seminar, CSULA

“Sex and survival: The impacts of energetic trade-offs for the Mojave Desert moss *Syntrichia caninervis* (Pottiaceae)”

**teaching**

Teaching Appointments

2019-2020 Graduate Student Instructor, UCB

2015-2016 Graduate Student Instructor, UCB

2014-2015 Teaching Assistant, CSULA

2009-2012 Undergraduate Student Instructor, IUPUI

2008-2012 Recitation Leader, IUPUI

Undergraduate Courses

Introduction to California Plant Life (Field Course), UCB 2020

Ecosystems of California (Field Course), UCB 2019

Introductory Biology Laboratory, UCB 2015, 2016

Ecology Laboratory, CSULA 2014, 2015

Plant Biology Laboratory for Non-Majors, CSULA 2014

Peer-Led Team Learning Methods in Teaching Chemistry, IUPUI 2009-2012

General Chemistry I Peer-Led Team Learning Recitation, IUPUI 2008-2012

Concepts of Biology II Recitation, IUPUI 2009

Workshops

Biocrusts: The Living Skin of the Earth, Expanding Your Horizons Girls’ Conference, UCB 2019

Introduction to R, Git, Shell, and Reproducible Analysis in R, Software Carpentry, UCB 2019

Biological Sciences Discipline Workshop, Teaching Conference for First-Time GSIs, UCB 2018

Introduction to Shell, Git, and R, Data Carpentry, UCB 2018

Introduction to Genomics Data Wrangling, Data Carpentry UCB 2018

**Research Experience**

2015-Present **Graduate Student Researcher**

Department of Integrative Biology

University of California, Berkeley

Laboratory of Dr. Brent Mishler

*The evolution and eco-physiology of UV tolerance in dryland mosses*

2018-2019  **Graduate Student Researcher**

Department of Integrative Biology

University of California, Berkeley

Laboratory of Dr. Brent Mishler

*The 3DMoss Project: Desiccation and Diversity in Dryland Mosses*

2016  **Graduate Student Researcher**

Department of Geography

University of California, Berkeley

Laboratory of Dr. Laurel Larsen

*Analysis of landscape features from RASCAL, a model of Florida everglades landscape evolution*

2013-2015 **Graduate Student Researcher**

Department of Integrative Biology

University of California, Berkeley

Laboratory of Dr. Kirsten Fisher

*Sex or survival? The genetic impacts of environment and energetic trade-offs for the Mojave Desert moss Syntrichia caninervis (Pottiaceae)*

2009-2012 **Life Health Sciences Internship**

Orthopaedic Laboratories

Indiana University School of Medicine

Laboratory of Dr. Melissa Kacena

*Characterization of C-Mpl and Pyk2 in skeletal growth and development and in bone-blood interactions*

2011 **Multidisciplinary Undergraduate Research Institute**

Departments of Earth Sciences & Department of Anthropology

Indiana University—Purdue University—Indianapolis

Laboratories of Dr. Gabriel Filippelli & Dr. Jeremy J. Wilson

*Analysis of the ratio of carbon to nitrogen from soil cores in a Mississippian era Native American civilization site as a marker for landscape use change*

**serviCe**

1. **Community**

* Peer reviewer: *Plant and Soil*, *American Journal of Botany*, *Annals of Botany*, *Plant Biology*, and *The Bryologist.*
* Social Media Chair: California Native Plant Society, Bryophyte Chapter, 2018-2020
* Student Representative: International Molecular Moss Science Society, 2018-present

1. **University**

* Curriculum Faculty Committee, Department of Integrative Biology, UCB, 2018-2019
* Diversity Faculty Committee, Department of Integrative Biology, UCB, 2018-2019
* Graduate Student Orientation Committee, Department of Integrative Biology, UCB, 2018-2019
* Women in Science at Cal, Student Organization Planning Committee, UCB, 2016-2019

**Mentorship**

Undergraduate Students

Dean Berkowitz, Mishler Lab, UCB 2018-2020

Jordan Jomsky, Mishler Lab, UCB 2018-2020

Shloka Reddy, Mishler Lab, UCB

Heloise Carion, Mishler Lab, UCB 2017-2018

Easha Sagar, Mishler Lab, UCB 2017-2018

Brittanie Rodriguez, Fisher Lab, CSULA 2015

Katelyn Millette, Fisher Lab, CSULA 2014

High School Students

José Adame Medina, Mishler Lab, Berkeley High School 2019

Angela Sacramento, Mishler Lab, Oakland Technical High School 2018

**Outreach**

1. **Media & Print**

Cal BioSciences Annual Newsletter, article [here](https://ls.berkeley.edu/sites/default/files/h13691_biological_science_newsletter_v9.pdf) 2019

**II. Activities & Presentations**

Networking Guest, Success Suits You! Biotech Partners, Berkeley High School 2020

Supervisory Scientist, Mission Mojave, Blueprint Earth 2019

Cal Day, Bryophyte Station, University & Jepson Herbaria, UCB 2019

Interview Day, Panel Member, “Life as an IB Graduate Student,” UCB 2016, 2017, 2018

Cal Day, Bryophyte Station, University & Jepson Herbaria, UCB 2018

Cal Day, Bryophytes & Ferns Station, University & Jepson Herbaria, UCB 2016

“Be a Scientist” Mentor, Community Resources for Science 2016

Logistics Volunteer, Expanding Your Horizons Conference 2016

Field Researcher, Mission Mojave, Blueprint Earth 2014, 2015

Naturalist, Marine Mammals, Indianapolis Zoo 2012

Youth Mentor “Big Sister,” Big Brothers Big Sisters of Central Indiana 2010-2011

**professional societies**

California Native Plant Society, International Molecular Moss Society (iMOSS), American Bryological and Lichenological Society, Botanical Society of America, California Botanical Society

**Code**

github.com/jenna-tb-ekwealor

**skills**

Proficiency in R, Bash, Matlab, Git, & HTML. Experience programming in Python, Perl, & Java. Proficiency in bryophyte microscopy work (dissection, sectioning, and creating permanent slides).

**LANGUAGES**

English (native), Spanish (limited working proficiency), Portuguese (limited working proficiency)