

# Jenna T. B. Ekwealor

## CURRICULUM VITAE

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### EDUCATION

#### **Ph.D. Candidate**

Department of Integrative Biology, Brent Mishler Lab  
University of California, Berkeley (UCB)  
Present

#### **M.S. – Environmental Science – Environmental Biology**

**Thesis:** “Sex or survival? The genetic impacts of environment and energetic trade-offs for the Mojave Desert moss *Syntrichia caninervis* (Pottiaceae)”  
California State University, Los Angeles (CSULA)  
2015

#### **B.S. – Biology, Chemistry Minor**

Purdue University, Indiana University—Purdue University—Indianapolis (IUPUI)  
2012

#### **B.A. – Religious Studies**

Indiana University, IUPUI  
2012

### RESEARCH AND PROFESSIONAL EXPERIENCE

2015-2020 PhD Research, UCB

**Project:** Investigating biochemistry, genomics, and evolutionary history of UV-tolerance in desert mosses

2018-2019 Graduate Student Researcher, UCB

2015-2016 Graduate Student Instructor, UCB

2014-2015 Teaching Assistant, CSULA

2009-2012 Research Intern, Orthopaedic Laboratories, Indiana University School of Medicine (IUSM)

### PUBLICATIONS

1. **Baughman, Jenna T.**; Fisher, Kirsten M. Photosynthesis through quartz: Hypolith mosses in the Mojave Desert. (In prep).
2. **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
3. 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.; Srouf, 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

4. 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

## FUNDING

### Current

UC Natural Reserve System	2018-2019
Mathias Graduate Student Research Grant	
\$2,000	

Luso-American Education Foundation Scholarship	2018-2019
\$1,000	

Pinto-Fialon Fellowship, UCB	2018-2019
\$8,000	

American Bryological and Lichenological Society	2017
Anderson & Crum Field Bryology Research Award	
\$750	

### Contributions to ongoing funded research

NSF Division of Environmental Biology #163856

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

PI: Brent Mishler, UCB

Role: Contributed data

### Previous

Pinto-Fialon Fellowship, UCB	2017-2018
\$7,735	

American Bryological and Lichenological Society	2018, 2016
Annual Meeting Travel Award	
\$600	

Integrative Biology Summer Research Award (UCB)	2018, 2017
\$1,750	

California Botanical Society	2017
Graduate Student Symposium Travel Award	
\$200	

Berkeley Fellowship, UCB	2016-2018
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Graduate Student Research Allocations Committee Research Award Integrative Biology Graduate Student Research Funds (UCB) \$300	2016-2017
Graduate Student Research Allocations Committee Research Award Integrative Biology Graduate Student Research Funds (UCB) \$300	2015-2016
Graduate Student Research Allocations Committee Research Award Integrative Biology Graduate Student Conference Travel Funds (UCB) \$250	2015-2016
NSF Research Coordination Network, Evo-Devo-Eco Network Research Exchange Grant Title: Sex or survival? The genetic impacts of environment and energetic trade-offs for the Mojave Desert moss <i>Syntrichia caninervis</i> (Pottiaceae) \$3,000	2014

## HONORS & AWARDS

- Luso-American Education Foundation (2018-2019)
- Berkeley Fellowship, UCB (2016-2018)
- Pinto-Fialon Fellowship, UCB (2017)
- NSF National Research Traineeship, Environment and Society: Data Sciences for the 21<sup>st</sup> Century, UCB (2015-2017)
- Outstanding Graduate Student Instructor, UCB (2016)
- Minority Biomedical Research Support (MBRS) Research Initiative for Scientific Enhancement (RISE), MS-to-Ph.D. Graduate Research Fellowship, CSULA (2014-2015)
- Tutor of the Month, Tutor Doctor of San Gabriel Valley (2013)
- Rowland A. Sherrill Outstanding Religious Studies Student Award, Department of Religious Studies, IUPUI (2012)
- Christine Jakacky Mentor of the Year, IUPUI (2012)
- 13<sup>th</sup> Annual IUPUI Top 100 Outstanding Students, IUPUI (2012)
- Ronald E. McNair Post-Baccalaureate Achievement Scholar, IUPUI (2009-2012)
- 12<sup>th</sup> Annual IUPUI Top 100 Outstanding Students, IUPUI (2011)

## SELECTED PRESENTATIONS

### Oral Presentations

American Bryological and Lichenological Society Conference  
"UV Tolerance in Mojave Desert Mosses"  
*Awarded ABLS Student Travel Award*

Nederland, CO, USA, 2018

California Botanical Society Graduate Symposium  
"Adaptation, facilitation, and refugia in Mojave Desert mosses"  
*Awarded Cal. Bot. Soc. Travel Award*

Santa Barbara, CA, USA, 2017

Biocrust3 Moab, UT, USA, 2016  
 Early Career Scientists Symposium  
 “Natural desert terraria: Characterization of hypolithic Mojave Desert moss community”  
*Awarded Biocrust3 Complimentary Registration Award*

Biocrust3 Moab, UT, USA, 2016  
 Molecular Frontiers Symposium  
 “Males of the Mojave Desert moss *Syntrichia caninervis* (Pottiaceae) are rare and shy”  
*Awarded Biocrust3 Complimentary Registration Award*

Botany Savannah, GA, USA, 2016  
 “Natural desert terraria: Characterization of hypolithic Mojave Desert moss community”  
*Awarded ABLs Travel Award*

Botany Savannah, GA, USA, 2016  
 “Males of the Mojave Desert moss *Syntrichia caninervis* (Pottiaceae) are rare and shy”  
*Awarded ABLs Travel Award*

California Botanical Society Graduate Symposium Claremont, CA, USA, 2015  
 “Natural desert terraria: Characterization of hypolithic Mojave Desert moss community”  
*Awarded 1<sup>st</sup> Place, Completed Research Category*

### Poster Presentations

International Molecular Moss Society (iMOSS) Meeting St. Petersburg, FL, USA, 2018  
 “UV Tolerance in Mojave Desert Soil Mosses”  
*Awarded 1<sup>st</sup> Place Student Posters*  
*Awarded iMOSS Trainee Fellowship*

California Native Plant Society Conservation Conference San Jose, CA, USA, 2015  
 “Natural desert terraria: Characterization of hypolithic Mojave Desert moss community”  
*Awarded 1<sup>st</sup> Place Student Posters*

### SYNERGISTIC ACTIVITIES

- Reviewer for *Plant and Soil*, *American Journal of Botany*, *Annals of Botany*, *Plant Biology*, and *The Bryologist*.
- Social Media Chair, California Native Plant Society, Bryophyte Chapter
- Student Representative, International Molecular Moss Society

### UNDERGRADUATE & HIGH SCHOOL STUDENTS MENTORED

Dean Berkowitz, Mishler Lab, UCB	2018-2019
Jordan Jomsky, Mishler Lab, UCB	2018-2019

Shloka Reddy, Mishler Lab, UCB	2018
Angela Sacramento, Mishler Lab, Oakland Technical High School	2018
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

## VOLUNTEER & OUTREACH

- Supervisory Scientist—Mission Mojave, Blueprint Earth 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
- Advanced Canine Companion, Humane Society of Indianapolis 2012
- Youth Mentor “Big Sister,” Big Brothers Big Sisters of Central Indiana 2010-2011

## PROFESSIONAL ASSOCIATIONS

California Native Plant Society – Bryophyte Chapter – Social Media Chair  
 International Molecular Moss Society (iMOSS) – Student/Postdoc Representative  
 American Bryological and Lichenological Society  
 Botanical Society of America  
 Society of Systematic Biologists

## TEACHING

- Expanding Your Horizons Conference, UCB 2019  
*Course:* Biocrusts: The Living Skin of the Earth  
*Responsibilities:* Conducted a STEM workshop for middle-school girls.
- Software Carpentry Workshop Helper, UCB 2019  
*Course:* Introduction to R, Git, Shell, and Reproducible Analysis in R  
*Responsibilities:* Helped learners with software installation and analyses.
- Teaching Conference for First-Time Graduate Student Instructors, UCB 2018  
*Course:* Biological Sciences Discipline-Cluster Workshop  
*Responsibilities:* Developed and taught a workshop for first-time UCB Graduate Student Instructors to prepare them for their first class.
- Data Carpentry Workshop Helper, UCB 2018  
*Course:* Introduction to Shell, Git, and R  
*Responsibilities:* Helped learners with software installation and analyses.

- Data Carpentry Workshop Helper, UCB 2018  
*Course:* Introduction to Genomics Data Wrangling  
*Responsibilities:* Helped learners with installation and coding.
- Graduate Student Instructor, UCB 2015, 2016  
*Course:* BIO 1B, Introductory Biology Laboratory  
*Responsibilities:* Prepared and co-taught weekly 3-hour laboratories for sections of 30 freshman-level undergraduates. Held weekly office hours. Graded quizzes, assignments, and lab exams.  
*\*2015-2016 Outstanding Graduate Student Instructor Award*
- Graduate Teaching Assistant, CSULA 2014, 2015  
*Course:* BIOL 360, Ecology Laboratory  
*Responsibilities:* Prepared and taught weekly 3-hour laboratories for sections of 30 junior- and senior-level undergraduates. Held weekly office hours. Graded quizzes, assignments, and lab exams.
- Graduate Teaching Assistant, CSULA 2014  
*Course:* BIOL 156, Plant Biology Laboratory for Non-Majors  
*Responsibilities:* Prepared and taught weekly 3-hour laboratories for sections of 30 undergraduates from any level. Held weekly office hours. Graded quizzes, assignments, and lab exams.
- Peer-Led Team Learning, Program Coordinator, IUPUI 2009-2012  
*Course:* CHEM-C496, Methods in Teaching Chemistry  
*Responsibilities:* Prepared and co-taught weekly 2-hour classes for sections of 30 undergraduates from any level. Held weekly office hours and graded assignments. Also included administrative responsibilities to organize and run the IUPUI Chemistry Peer-Led Team Learning program. Prepared scholarship authorizations, room reservations, interviewed and hired peer mentors, and helped existing mentors with course content and pedagogical development.
- Workshop Leader, Peer-Led Team Learning, IUPUI 2008-2012  
*Course:* CHEM-C105, General Chemistry I Recitation  
*Responsibilities:* Prepared and taught weekly 2-hour classes for sections of 10 freshman-level undergraduates. Wrote and graded quizzes.
- Recitation Mentor, Bepko Learning Center, IUPUI 2009  
*Course:* BIOL-K103, Concepts of Biology II Recitation  
*Responsibilities:* Prepared and taught weekly 1.5-hour classes for sections of 15-30 freshman-level undergraduates. Wrote and graded quizzes.

## LANGUAGES

English – Native  
Spanish – Intermediate  
Portuguese – Intermediate