

Jenna T. B. Ekwealor

CURRICULUM VITAE

1001 Valley Life Sciences Bldg. #2465, Berkeley, CA 94720 | 219-393-0179 | jtbe@berkeley.edu

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]

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. (Under review at *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.; 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
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

| | |
|-----------|---|
| 2020 | Graduate Remote Instruction Innovation Fellowship (UCB) (\$5,000) |
| 2015-2020 | Berkeley 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 21 st 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

| | |
|------|--|
| 2016 | Outstanding Graduate Student Instructor, UCB |
| 2013 | Tutor of the Month, Tutor Doctor of San Gabriel Valley |
| 2012 | Rowland A. Sherrill Outstanding Religious Studies Student Award, IUPUI |
| 2012 | Christine Jakacky Mentor of the Year, IUPUI |
| 2012 | 13 th Annual IUPUI Top 100 Outstanding Students, IUPUI |
| 2011 | 12 th 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" <i>Honorable Mention for A. J. Sharp Award</i> <i>ABLS Student Travel Award (\$400)</i> |
| 2019 | Bryology 2019, Madrid, Spain "UV Tolerance in Mojave Desert Mosses" <i>UCB Dept. of Integrative Biology Graduate Student Research Allocations Committee Travel Award (\$250)</i> |
| 2018 | American Bryological and Lichenological Society Meeting, Nederland, CO, USA "UV Tolerance in Mojave Desert Mosses" <i>ABLS Student Travel Award (\$600)</i> |
| 2017 | California Botanical Society Graduate Symposium, Santa Barbara, CA, USA "Adaptation, facilitation, and refugia in Mojave Desert mosses" <i>California Botanical Society Travel Award (\$200)</i> |
| 2016 | Biocrust3, Moab, UT, USA Molecular Frontiers Symposium "Males of the Mojave Desert moss <i>Syntrichia caninervis</i> (Pottiaceae) are rare and shy" <i>Biocrust3 Complimentary Registration Award</i> |
| 2016 | Biocrust3, Moab, UT, USA Early Career Scientists Symposium "Natural desert terraria: Characterization of hypolithic Mojave Desert moss community" <i>Biocrust3 Complimentary Registration Award</i> |
| 2016 | Botany 2016, Savannah, GA, USA "Natural desert terraria: Characterization of hypolithic Mojave Desert moss community" <i>ABLS Student Travel Award (\$600)</i> |
| 2016 | Botany 2016, Savannah, GA, USA "Males of the Mojave Desert moss <i>Syntrichia caninervis</i> (Pottiaceae) are rare and shy" <i>UCB Dept. of Integrative Biology Graduate Student Research Allocations Committee Travel Award (\$250)</i> |
| 2015 | California Botanical Society Graduate Symposium, Claremont, CA, USA "Natural desert terraria: Characterization of hypolithic Mojave Desert moss community" <i>Best Presentation Award, Completed Research Category</i> |

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 <i>The evolution and eco-physiology of UV tolerance in dryland mosses</i> |
| 2018-2019 | Graduate Student Researcher Department of Integrative Biology University of California, Berkeley Laboratory of Dr. Brent Mishler <i>The 3DMoss Project: Desiccation and Diversity in Dryland Mosses</i> |
| 2016 | Graduate Student Researcher Department of Geography University of California, Berkeley Laboratory of Dr. Laurel Larsen <i>Analysis of landscape features from RASCAL, a model of Florida everglades landscape evolution</i> |
| 2013-2015 | Graduate Student Researcher Department of Integrative Biology University of California, Berkeley Laboratory of Dr. Kirsten Fisher <i>Sex or survival? The genetic impacts of environment and energetic trade-offs for the Mojave Desert moss <i>Syntrichia caninervis</i> (Pottiaceae)</i> |
| 2009-2012 | Life Health Sciences Internship Orthopaedic Laboratories Indiana University School of Medicine Laboratory of Dr. Melissa Kacena <i>Characterization of C-Mpl and Pyk2 in skeletal growth and development and in bone-blood interactions</i> |
| 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

I. 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

II. 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

I. Media & Print

| | |
|---|------|
| Cal BioSciences Annual Newsletter, article here | 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)