

Jennifer C. Quebedeaux

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EDUCATION

University of Illinois at Urbana-Champaign (UIUC), Champaign, IL 2015-Present
PhD in Plant Biology (Anticipated Degree Date: Spring 2020)
Louisiana State University (LSU), Baton Rouge, LA 2011-2015
Bachelor of Science in Biochemistry

RESEARCH EXPERIENCE

Graduate Researcher, University of Illinois at Urbana-Champaign, Dept. of Plant Biology 2015-Present
Advisor: Dr. Andrew Leakey, Project: Carbon Metabolism as a Target to Improve Photosynthesis and Crop Yield in Response to Elevated CO₂

- Characterized response of several phloem loading species to elevated CO₂.
- Observed overexpression of sucrose transporters in soybean (*Glycine max*).
- Investigated regulation of carbon metabolism in *Arabidopsis thaliana*.
- Phenotyped wheat (*Triticum aestivum*) lines with altered water-use efficiency.

Undergraduate Researcher, Louisiana State University, Dept. of Biological Science 2011-2015
Advisor: Dr. James V. Moroney, Project: The Physiological Role of Carbonic Anhydrases in *Arabidopsis Thaliana*

- Further determined the role of carbonic anhydrases in photosynthesis through β -glucuronidase reporter gene system.

Undergraduate Researcher, LSU Office of Strategic Initiatives REU (Funded by NSF) Summer 2013
Advisor: Dr. James V. Moroney, Project: Investigating the Differences between Two Chloroplast Carbonic Anhydrases in *Arabidopsis thaliana*

- Analyzed expression levels and pathway involvement of β CA1 and β CA5 by using the β -glucuronidase reporter gene system and developmental studies.

Undergraduate Researcher, LSU Office of Strategic Initiatives REU (Funded by NSF) Summer 2012
Advisor: Dr. James V. Moroney, Project: Localization and Characterization of the α 1 Carbonic Anhydrase in *Arabidopsis Thaliana*

- Localized the controversial α CA1 using protoplast isolation and a GFP fusion.

PUBLICATIONS

RJ DiMario, **JC Quebedeaux**, DJ Longstreth, M Dassanayake, MM Hartman & JV Moroney (2016) The cytoplasmic carbonic anhydrases β CA2 and β CA4 are required for optimal plant growth at low CO₂. *Plant Physiology* pp.01990.2015. <https://doi.org/10.1104/pp.15.01990>

KA Bishop, P Lemonnier, **JC Quebedeaux**, CM Montes, ADB Leakey & EA Ainsworth (2018) Similar photosynthetic response to elevated carbon dioxide concentration in species with different phloem loading strategies. *Photosynthesis Research*, (), 1-12. <https://doi.org/10.1007/s11120-018-0524-x>

TEACHING EXPERIENCE

Teaching Assistant, University of Illinois at Urbana-Champaign Fall 2016
Integrative Biology Genetics Laboratory
UIUC List of Teachers Ranked as Excellent
Teaching Assistant, University of Illinois at Urbana-Champaign Fall 2017
Integrative Biology Genetics Lecture Coordinator
Guest Lecture on Eukaryotic Gene Regulation

HONORS, RECOGNITIONS, AND AWARDS

John R. Laughnan Fund Award \$800	2018-2019
Department of Education Graduate Assistance in Areas of National Need Fellowship \$60,000	2017-2019
LA-STEM Research Scholars Program \$45,000	2011-2015
LSU Dean's List	Fall 2011, Spring 2012, Spring 2014
Louisiana Taylor Opportunity Program for Students Honors Award \$45,000	2011-2015
LSU Residents Scholarship \$4,000	2011-2015
Willis and Mildred Pellerin Foundation Scholarship \$3,000	2011-2015
LSU Office of Strategic Initiatives REU \$5,000	2013
LSU Office of Strategic Initiatives REU \$5,000	2012
Lafayette Credit Union Scholarship \$2,000	2011-2012

CONFERENCES & SYMPOSIUMS

Fourth Annual International Food Security Symposium. University of Illinois at Urbana-Champaign, Champaign, IL. April 2018. Poster Title: Potential Gene Targets to Improve Crop Productivity Under Elevated [CO₂].

DuPont-Pioneer Plant Science Symposium. University of Illinois at Urbana-Champaign, Champaign, IL. September 2017. Poster Title: Potential Gene Targets to Improve Crop Productivity Under Elevated [CO₂]. First Place

Plant Biology Fall Welcome. University of Illinois at Urbana-Champaign, Champaign, IL. September 2017. Poster Title: Potential Gene Targets to Improve Crop Productivity Under Elevated [CO₂]. First Place

Institute for Sustainability, Energy, and Environment Congress: Building Resilience to Climate Change. University of Illinois at Urbana-Champaign, Champaign, IL. September 2017. Poster Title: Potential Gene Targets to Improve Crop Productivity Under Elevated [CO₂].

Crop Sciences and Plant Biology Science and Spirits. University of Illinois at Urbana-Champaign, Champaign, IL. April 2017. Poster Title: Increasing Sucrose Transport to Improve Soybean Response to Elevated [CO₂].

Meeting of the Midwestern Section of the American Society of Plant Biologists. Purdue University, West Lafayette, IN. February 2017. Poster Title: Increasing Sucrose Transport to Improve Soybean Response to Elevated [CO₂].

Donald Danforth Plant Science Center Fall Symposium: Genetics & Genomics of Crop Improvement. Donald Danforth Plant Science Center, St. Louis, MO. September 2016. Poster Title: Over-expressing a Phloem Sucrose Transporter to Improve Soybean Photosynthesis at Elevated [CO₂].

DuPont-Pioneer Plant Science Symposium. University of Illinois at Urbana-Champaign, Champaign, IL. September 2016.

Meeting of the Southern Section of the American Society of Plant Biologists. Dauphin Island, AL. March 2015. Poster Title: Localization of Carbonic Anhydrase Isoforms in *Arabidopsis thaliana*. First Place

Summer Undergraduate Research Forum (SURF). Louisiana State University, Baton Rouge, LA. August 2013. Poster Title: Investigating the Differences Between Two Chloroplast Carbonic Anhydrases in *Arabidopsis thaliana*.

The VIIIth International Symposium on Inorganic Carbon Utilization by Aquatic Photosynthetic Organisms (CCM8). Loyola University, New Orleans, LA. May 2013.

Undergraduate Research Conference (URC). Louisiana State University, Baton Rouge, LA. October 2012. Poster Title: Characterization of α CA1 in *Arabidopsis thaliana*.
Summer Undergraduate Research Forum (SURF). Louisiana State University, Baton Rouge, LA. July 2012. Poster Title: Characterization of α CA1 in *Arabidopsis thaliana*.

TRAINING

LI-6800 Portable Photosynthesis System, LI-COR, Urbana, IL, April 2018.

WORKSHOPS

Getting Comfortable in the Teaching Role	2018
What the Best College Teachers Do	2017
Writing Learning Objectives	2017
Grading Fairly & Efficiently with Rubrics	2017
Effective Discussions	2017
Course Policies and the Syllabus	2017
Student Feedback	2017
Tackling Common Issues in General Lab Courses	2016
Teaching for Professional Development	2016
Complexities of the College Classroom	2016
Engagement Outside the Classroom	2016

COMMUNITY SERVICE

Pollen Power at the Carl R. Woese Institute for Genomic Biology	2015-Present
Camp Counselor	
Plants iView	2016
Coordinator	
Mentor Matching Engine by Illinois Learning Exchange	2016
Mentor	
Carl R. Woese Institute for Genomic Biology Genome Day	2015
Activity Leader	
Relay for Life of LSU	2015
Science Demonstrations	
Iberville Math, Science, and Arts Academy East Science Fair	2014
Judge	
LSU Innovation through Institutional Integration ACT Prep	2012-2014
Tutoring in math and science sections and administering practice tests	
Sally Ride Science Festival	2012
Science Demonstrations	

ORGANIZATIONS

American Society of Plant Biology	2015-Present
UIUC Plant Biology Association of Graduate Students	2015-Present
Departmental Committee Representative 2017-2018	
American Chemical Society	2013-2015
Beta Beta Beta National Biological Honor Society- Eta Alpha Chapter	2014-2015
Founding Member	
LSU Student Affiliates of the American Chemical Society	2013-2015
Secretary 2014-2015	
LSU Plant Biochemistry Journal Club	2012-2013
LSU Undergraduate Research Association	2013
LSU Honors College	2011-2013
LSU Science Residential College	2011-2012

SKILLS

- Planting and Care of Arabidopsis, Sugarbeet, Soybean, & Wheat
- LI-6400 & LI-6800 Gas Exchange System
- Carbohydrate Quantification
- Carbon Nitrogen Content
- C14 Leaf Disc Uptake Assay
- DNA & RNA Extraction
- PCR
- ELISA
- Copy Number Variation
- β -glucuronidase (GUS) Promoter Analysis
- Dissection Microscopy
- Optical Tomography

REFERENCES

Available Upon Request