

## CURRICULUM VITAE

### Jeffrey C. Cameron

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 Renewable and Sustainable Energy Institute (RASEI)  
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### PROFESSIONAL PREPARATION

|       |                                    |                                |      |
|-------|------------------------------------|--------------------------------|------|
| Ph.D. | Washington University in St. Louis | Biology and Biomedical Science | 2011 |
| M.S.  | Montana State University-Bozeman   | Plant Science                  | 2005 |
| B.S.  | Montana State University-Bozeman   | Plant Science                  | 2003 |

### Thesis

*Redox Homeostasis in Cyanobacteria*  
 Washington University in St. Louis, MO  
 Advisor: Prof. Himadri Pakrasi

### APPOINTMENTS

|              |                      |                                                    |                                                                                                     |
|--------------|----------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 2021-present | Advisor              | Prometheus Materials Inc.                          | Boulder, CO                                                                                         |
| 2021-present | Co-Founder           | Prometheus Materials Inc.                          | Boulder, CO                                                                                         |
| 2019-present | Core Faculty Member  | Center for Microbial Exploration                   | University of Colorado-Boulder                                                                      |
| 2017-present | Joint Appointment    | Bioenergy Sciences and Technology Division         | National Renewable Energy Laboratory, Golden, CO                                                    |
| 2015-present | Assistant Professor  | Department of Biochemistry                         | University of Colorado-Boulder, CO                                                                  |
| 2015-present | Fellow               | Renewable and Sustainable Energy Institute (RASEI) | Joint Institute between CU-Boulder and the National Renewable Energy Laboratory (NREL), Boulder, CO |
| 2013-2015    | Postdoctoral Scholar | Department of Chemical and Biological Engineering  | University of Wisconsin-Madison, WI                                                                 |
| 2011-2013    | Postdoctoral Scholar | Department of Plant and Microbial Biology          | University of California-Berkeley, CA                                                               |

### HONORS AND AWARDS

- 2019 Research and Innovation Faculty Fellow, University of Colorado-Boulder
- Awarded Best Poster, Biogenesis of a Bacterial Organelle. 11<sup>th</sup> Workshop on Cyanobacteria, Washington University in St. Louis, August 7-11 2013.
- Selected and Funded by the US-DOE to Represent the United States of America at the 57<sup>th</sup> Meeting of the Nobel Laureates in Lindau, Germany, July 1-6, 2007.

Undergraduate Scholars Program, Funding from MSU NSF-EPSCoR program, Montana State University, Bozeman, Dr. Robert Sharrock, Fall 2002-Spring 2003

## INVITED TALKS, SEMINARS, AND MEETINGS ATTENDED

### 2023

**Invited Speaker**, “TBD”, Gordon Research Conference on Photosynthesis, Sunday River in Maine, July 23-28, 2023

**Invited Speaker**, “TBD”, Department of Biology, Concordia University, Montreal, Canada, March 10, 2023

**Invited Speaker**, “TBD”, Department of Biology, McGill University, Montreal, Canada, March 13, 2023

### 2022

**Invited Speaker**, “Dynamics of carbon metabolism in photosynthetic microbes”, Microbial Sciences Initiative (MSI), Harvard University, Boston, MA October 7, 2022

**Invited Speaker**, “Architecture of microbial metabolism in space and time”, Department of Biological Engineering, Massachusetts Institute of Technology, Boston, MA October 6, 2022

**Invited Speaker**, “Imaging carbon-fixation and carbon-assimilation in photosynthetic organisms”, Molecular Foundry User Meeting, Lawrence Berkeley National Laboratory, Berkeley, CA August 18-19, 2022

**Speaker/Organizer**, “Data-driven structured population modeling for prediction of complex photosynthetic phenotypes”, NSF MODULUS Workshop, George Mason University, Fairfax, VA, August 11-12, 2022

**Invited Speaker**, “Life cycle of a thylakoid membrane” University of Illinois-Urbana/Champagne, April 26-28, 2022

**Invited Keynote Speaker**, 14<sup>th</sup> Workshop on Cyanobacteria, Michigan State University, East Lansing, MI, June 16-19, 2022

**Invited Speaker**, My path towards science and industry, Washington University in St. Louis, Plant and Microbial Sciences Seminar Series, May 29, 2022

**Invited Speaker**, “Illuminating the metabolic potential of photosynthetic cyanobacteria using single-cell imaging”, Engineering Biology Research Consortium, Synthetic Biology Young Speaker Series (SYNBYSS), Online Conference, June 9, 2022

**Invited Speaker**, 31<sup>st</sup> Western Photosynthesis Conference, “Life cycle of a thylakoid membrane”, Online Conference, March 24-25, 2022 (*Rescheduled from 2020 due to Covid-19*)

**Invited Speaker**, 10<sup>th</sup> Internatinoal Symposium on Inorganic Carbon Utilization by Aquatic Photosynthetic Organisms, “Life cycle and activity dynamics of a cyanobacterial carboxysome”, Princeton, NJ, July 6-8, 2022 (*Rescheduled from 2020 due to Covid-19*)

**Invited Speaker**, “Photosynthesis: between light and a hard place”, 2022 Gordon Research Conference on Geobiology, Ventura, CA, November 6-11, 2022

### 2021

**Invited Speaker**, “Living Building Materials”, Boulder Rotary Club, Boulder, CO, December 10, 2021

**Invited Keynote Speaker**, “Long-term time-lapse imaging of cyanobacterial carboxysomes reveals a direct role for rubisco oxygenase activity in photoprotection”, Eastern Regional Photosynthesis Meeting, April 24, 2021

**Invited Speaker**, “Sub-cellular architecture of cyanobacterial photosynthesis in space and time”, Louisiana State University, April 12, 2021

## 2020

- Invited Speaker**, “Architecture of microbial metabolism in space and time”, John Lawrence Seminar Series, Lawrence Berkeley National Laboratory, December 8, 2020
- Invited Speaker**, “Architecture of microbial metabolism in space and time: The role of the cyanobacterial CO<sub>2</sub>-concentrating mechanism in biogenic carbonate precipitation” Sorbonne University, Paris, France, November 3, 2020
- Invited Speaker**, “Architecture of microbial metabolism in space and time”, University of Chicago, October 15, 2020
- Invited Speaker**, “Architecture of microbial metabolism in space and time”, Tech Talk, Google X, June 19, 2020
- Invited Speaker**, Telluride Science Research Center Workshop on ‘Plasticity in Biological Organization’, September 22-26, 2020 (*Rescheduled due to Covid-19/unable to attend*)
- Invited Speaker**, “Applications and mechanisms of calcium carbonate precipitation by cyanobacteria”. National Renewable Energy Laboratory, February 18, 2020

## 2019

- Invited Speaker**, “The Carboxysome Life Cycle: Biogenesis and Degradation of Carbon-Fixing Protein Organelles in Cyanobacteria at Single(sub)-Cell Resolution”, Dept. of Molecular Biology, University of Wyoming, November 22, 2019
- Invited Speaker**, 45<sup>th</sup> Midwest/Southeast Photosynthesis Meeting, Marshall, Indiana, October 25-27
- Invited Speaker**, 1<sup>st</sup> US-Japan binational meeting, Kyoto, Japan, October 1-3, 2019
- Invited Speaker**, “Spatiotemporal dynamics and senescence of the cyanobacterial carbon-fixing machinery”, Department of Biology and Microbiology, South Dakota State University, September 6, 2019
- Co-Organizer** with Jianping Yu (NREL), 13<sup>th</sup> Workshop on Cyanobacteria, June 6-9, University of Colorado-Boulder
- Invited Speaker**, “Multi-generational analysis of chromosomes in polyploid cyanobacteria”, Department of Physics and Astronomy”, University of Denver, Colorado, May 29, 2019

## 2018

- Invited Speaker**, “Seeing Photosynthesis”, Erie High School SMART Team Recruitment Session, Erie, CO, November 26, 2018
- Invited Speaker**, “Spatiotemporal Dynamics of Photosynthesis in Single-Cells”, Department of Microbiology and Molecular Genetics, Oklahoma State University-Stillwater, September 10, 2018
- Invited Speaker** (Session Chair). Exploring the Regulation of Photosynthesis in Single-Cell Lineages at Sub-Cellular Resolution. American Society for Biochemistry and Molecular Biology (ASBMB) Annual Meeting, April 21-25, 2018 (Co-Organizer for Plant Biochemistry Spotlight Session).
- Invited Keynote Speaker**. Understanding Photosynthesis at Single-Cell Resolution. SMART Teams Colorado Regional Conference, University of Colorado-Boulder, Jennie Smoly Caruthers Biotechnology Building, April 7, 2018

## 2017

- Mechanical Regulation of Photosynthesis, Gordon Research Conference-Photosynthesis, Grand Summit Hotel at Sunday River, Newry, ME, July 16-21, 2017 (**Selected talk from poster abstracts**)

## 2016

- Invited Speaker**, Spatial Organization of Metabolism in Photosynthetic Microbes, Department of Chemical and Biological Engineering, Colorado State University, December 8, 2016

Effects of Asymmetric Partitioning of Macromolecular Structures on Cyanobacterial Physiology, Biophysics Supergroup, CU-Boulder, August 29, 2016  
Understanding Metabolic Heterogeneity in Populations of Photosynthetic Microbes, RASEI-REU Research Symposium, CU-Boulder, July 13, 2016  
Biogenesis of a bacterial organelle, Department of Geology (Alexis Templeton Group), CU-Boulder, January 20, 2016

#### 2015

Quantifying Metabolic Heterogeneity in Populations of Photosynthetic Microbes, Department of Applied Mathematics, CU-Boulder, November 18, 2015  
Current and Future Directions of the Cameron Lab, Biochemistry Division Annual Retreat, December 10, 2015  
Global identification of RNase III targets in *E. coli* using next-generation sequencing. CU-Boulder RNA Club, Boulder, CO, December 1, 2015  
RNA turnover in cyanobacteria. 41<sup>st</sup> Annual Midwest/Southeast Photosynthesis Meeting, Turkey Run State Park, Marshall, IN, October 24, 2015  
Biogenesis of a Bacterial Organelle, Butcher Symposium, University of Colorado-Boulder, November 6, 2015  
Global Identification of RNase III targets in *Escherichia coli* using Next-generation sequencing, 115<sup>th</sup> Annual Meeting, American Society for Microbiology, New Orleans, LA, May 30-June 2, 2015

#### 2014

**Invited talk**, Towards engineering RNA turnover in cyanobacteria. Society for Industrial Microbiology and Biotechnology, St. Louis, MO, July 20-24 2014.

#### 2013

**Invited poster talk**, Biogenesis of a bacterial organelle. 11<sup>th</sup> workshop on cyanobacteria, Washington University in St. Louis, August 7-11 2013. \*Awarded best poster prize.  
Biogenesis of a bacterial organelle. 11<sup>th</sup> workshop on cyanobacteria, Washington University in St. Louis, August 7-11 2013. \*Awarded best poster prize.  
Presence of a functional low-molecular weight thiol pool within the thylakoid lumen in the cyanobacterium *Synechocystis* sp. PCC 6803. 11<sup>th</sup> workshop on cyanobacteria, Washington University in St. Louis, August 7-11 2013.

#### 2012

Analysis of carboxysome assembly and function in cyanobacteria, Society for Experimental Botany Annual Meeting, Salzburg, Austria, June 29-July 2, 2012  
Analysis of carboxysome assembly and function in cyanobacteria, 112<sup>th</sup> General Meeting of the American Society for Microbiology. San Francisco, CA, June 16-19, 2012.

#### 2010

Redox redux: Life as a photosynthetic microbe, Departmental Seminar, Washington University in St. Louis, MO, October 15, 2010.  
Essential role of glutathione in acclimation to environmental and redox stress in cyanobacteria, Departmental Seminar, Washington University in St. Louis, MO, May 18, 2010.  
Essential role of glutathione in acclimation to environmental and redox perturbations in *Synechocystis* sp. PCC 6803, 10<sup>th</sup> Cyanobacterial Molecular Biology Workshop, UCLA Conference Center, Lake Arrowhead, CA, June 11-15, 2010.

#### 2009

Extreme sensitivity to oxidative stress in a *Synechocystis* mutant lacking glutathione, 11<sup>th</sup> Annual Fall Symposium, Donald Danforth Plant Science Center, St. Louis, MO, September 23-25, 2009.

### 2008

Glutathione metabolism and redox homeostasis in the cyanobacterium *Synechocystis* sp. PCC 6803, Departmental Seminar, Washington University in St. Louis, MO, April 1, 2008.

Examination of non-protein thiols involved in redox homeostasis in two related cyanobacteria, 34<sup>th</sup> Annual Midwest/Southeast Photosynthesis Meeting, Turkey Run State Park, IN, October 31-November 2, 2008.

### 2007

Glutathione in *Synechocystis* sp. PCC 6803, NSF-FIBR Project Annual Workshop, Washington University in St. Louis, MO, August 16, 2007.

Glutathione in *Synechocystis* sp. PCC 6803, 33<sup>th</sup> Annual Midwest/Southeast Photosynthesis Meeting, Turkey Run State Park, IN, November 9-11, 2007.

The reduction-oxidation buffering system in *Synechocystis* sp. PCC 6803, 9<sup>th</sup> Cyanobacterial Molecular Biology Workshop, Lakelawn Resort, Lake Delevan, WI, June 6-10 2007.

### 2004

A new mutant of *Arabidopsis*, *cif3*, exhibits compact inflorescence, American Society of Plant Biology Conference, Orlando, Florida, July 24-28, 2004.

### 2003

Molecular genetics of inflorescence architecture, Cargill Biotechnology Development Center, Minneapolis, Minnesota, January 2, 2003.

A new mutant of *Arabidopsis*, *cif3*, exhibits compact inflorescence, 7<sup>th</sup> International Congress of Plant Molecular Biology, Barcelona, Spain, June 23-28, 2003.

Characterization of the *Arabidopsis thaliana cif3* mutant, NSF Sponsored Research Symposium, University of Montana, Missoula, Montana, April 3-5, 2003.

## OUTREACH

2022-present Denver Nature and Science Museum Exhibit: *REFRESH*

## REFEREEE ACTIVITIES

Editorial Board 2023-2027 Journal of Plant Research (JPR)

Reviewing Editor, Frontiers in Plant Science

## PUBLICATIONS

**Google Scholar link:**

[https://scholar.google.com/citations?hl=en&user=zZUHj58AAAAJ&view\\_op=list\\_works](https://scholar.google.com/citations?hl=en&user=zZUHj58AAAAJ&view_op=list_works)

**Pubmed Link:**

<https://pubmed.ncbi.nlm.nih.gov/?term=jeffrey+c.+cameron>

## Preprints

7. Colin Gates, Nicholas C. Hill, Kelsey K. Dahlgren, and **Jeffrey C. Cameron**. Kinetics and targeting of Vipp1 aggregation in cyanobacteria. (In Review, Science Advances).

6. Sabina L. Altus, **Jeffrey C. Cameron**, and David M. Bortz. (2022) Asymptotic Analysis of a General Multi-Structured Population Model. *arXiv*, <https://doi.org/10.48550/arXiv.2204.10517>

(Published in *Journal of Mathematical Biology*).

5. Jian W. Tay and **Cameron JC.** (2022) Asymmetric survival in single-cell lineages of cyanobacteria in response to photodamage. *bioRxiv*, <https://doi.org/10.1101/2022.04.14.488368> (Published in *Photosynthesis Research*).
4. Huffine CA, Wheeler LC, Wing B, **Cameron JC.** (2022) Computational modeling and evolutionary implications of biochemical reactions in bacterial microcompartments. *EcoEvoRxiv*. doi:10.32942/osf.io/352u9. (Published in *Current Opinion in Microbiology*)
3. Kristin A. Moore, Jian W. Tay, **Cameron JC.** (2020) Dynamic Multigenerational Ploidy Landscape in *Synechococcus* sp. PCC 7002. *bioRxiv*, <https://doi.org/10.1101/661256>
2. Jian W. Tay and **Jeffrey C. Cameron.** (2020) CyAN: A cyanobacterial imaging and data analysis platform. *bioRxiv*, <https://doi.org/10.1101/2020.07.28.225219> (Published in *Methods in Enzymology*).
1. Kelsey K. Dahlgren, Colin Gates, Thomas Lee, **Jeffrey C. Cameron.** (2020) Proximity-based proteomics reveals the thylakoid lumen proteome in the cyanobacterium *Synechococcus* sp. PCC 7002. *bioRxiv*, <https://doi.org/10.1101/2020.04.07.030940> (Published in *Photosynthesis Research*)

### Accepted and In Press

#### 2022

37. Jian W. Tay and **Jeffrey C. Cameron.** (2022) Computational and biochemical methods to measure the activity of carboxysomes and protein organelles in vivo. *Methods in Enzymology*, DOI:10.1016/bs.mie.2022.09.010
36. Clair A. Huffine, Runyu Zhao, Yinjie J. Tang, Jeffrey C. Cameron. (2022) Role of carboxysomes in cyanobacterial CO<sub>2</sub>-assimilation and synthetic biology implications. *Environmental Microbiology*, <https://doi.org/10.1111/1462-2920.16283>
35. Jian W. Tay and **Cameron JC.** (2022) Asymmetric survival in single-cell lineages of cyanobacteria in response to photodamage. *Photosynthesis Research*, doi: 10.1007/s11120-022-00986-9.
34. Jacob A. Fenster, Allison Z. Werner, Jian Wei Tay, Matthew Gillen, Leo Schirookauer, Nicholas Hill, Audrey Watson, Kelsey J. Ramirez, Christopher W. Johnson, Gregg T. Beckham, **Jeffrey C. Cameron\***, Carrie A. Eckert\*. Dynamic and single cell characterization of a CRSIPR-interference toolset in *Pseudomonas putida* KT2440 for Beta-ketoadipate production from *p*-coumarate. (2022) *Metabolic Engineering Communications* (Accepted) (\*Co-corresponding Authors)
33. Patrick E. Thomas, Colin Gates, William Campodonico-Burnett, and **Jeffrey C. Cameron.** Zam is a redox-regulated member of the RNB-family required for optimal photosynthesis in cyanobacteria. (2022). *Microorganisms* 10(5): 1055
32. Jacqueline Wentz, **Jeffrey C. Cameron,** and David M. Bortz. Analytical Singular Value Decomposition for a Class of Stoichiometry Matrices. (2022) *SIAM J. Matrix Anal. Appl.* Vol. 43, No. 3: 1109-1147
31. Huffine CA, Wheeler LC, Wing B, **Cameron JC.** Computational modeling and evolutionary implications of biochemical reactions in bacterial microcompartments. (2022) *Current Opinion in Microbiology* 65:15-23

#### 2021

32. Hurley SJ\*, Wing BA, Jasper CE, Hill NC, **Cameron JC\***. Cyanobacterial oxygenic photosynthesis dominated Mid-Proterozoic primary productivity. (2021) *Science Advances* Vol 7. No. 2, eabc8998, DOI: 10.1126/sciadv.abc8998 (\*Co-corresponding Authors)
31. E.A. Delesky, P.E. Thomas, J.C. Cameron, and W.V. Srubar III. Effect of pH on the activity of Ice-Binding Protein from *Marinomonas primoryensis*. (2021) *Extremophiles* 25: 1-13

30. Jishen Qiu, Juliana Artier, Sherri Cook, Wil V. Srubar III, **Jeffrey C. Cameron\***, Mija H. Hubler\*. Engineering Living Building Materials (LBMs) towards Enhanced Bacterial Viability and Mechanical Properties. (2021) *iScience* 14(2): 102083 (**\*Co-corresponding Authors**)
29. Kelsey K. Dahlgren, Colin Gates, Thomas Lee, **Jeffrey C. Cameron**. Proximity-based proteomics reveals the thylakoid lumen proteome in the cyanobacterium *Synechococcus* sp. PCC 7002. (2021). *Photosynthesis Research*. 147: 177-195

#### 2020

28. Gordon GC, **Cameron JC**, Pflieger BF. Genome-wide analysis of RNA decay in the cyanobacterium *Synechococcus* sp. PCC 7002. (2020) *mSystems* DOI: 0.1128/mSystems.00224-20
27. **Jeffrey C. Cameron**. TAG...You're it, *Synechocystis* sp. PCC 6803!" (2020). *Plant and Cell Physiology* 61: 1535-1536
26. Kristin A. Moore, Sabina Altus, Jian W. Tay, Janet B. Meehl, Evan B. Johnson, David M. Bortz, **Jeffrey C. Cameron**. Mechanical Regulation of Photosynthesis in Cyanobacteria. (2020) *Nature Microbiology* 5: 757-767
25. Nicholas C. Hill, Jian W. Tay, Sabina Altus, David M. Bortz, **Jeffrey C. Cameron**. (2020). Lifecycle of a cyanobacterial carboxysome. *Science Advances* 6 (19): eaba1269
24. Julie E. Walker, Anthony A. Lanahan, Tiayong Zheng, Camilo Toruno, Lee R. Lynd, **Jeffrey C. Cameron**, Daniel G. Olson, Carrie A. Eckert (2020). Development of both type I-B and type II CRISPR/Cas genome editing systems in the cellulolytic bacterium *Clostridium thermocellum*. *Metabolic Engineering Communications* 10: e00116
23. Liya Liang, Rongming Liu, Kyle E. Foster, Alaksh Choudhury, Sherri Cook, **Jeffrey C. Cameron**, Wil V. Srubar III, and Ryan T. Gill. (2020). Genome engineering of *E. coli* for improved styrene production. *Metabolic Engineering* 57: 74-84

#### 2019

22. Chelsea M. Heveran, Sarah L. Williams, Jishen Qiu, Juliana Artier, Mija H. Hubler, Sherri M. Cook, **Jeffrey C. Cameron**, and Wil V. Srubar III. (2019). Biomineralization and Successive Regeneration of Engineered Living Building Materials. *Matter* 2: 481-494
21. Mary H. Abernathy, Jeffrey J. Czajka, Douglas Allen, Nicholas C. Hill, **Jeffrey C. Cameron\***, Yinjie J. Tang\*. (2019). Cyanobacterial carboxysome mutant analysis reveals the influence of enzyme compartmentalization on cellular metabolism and metabolic network rigidity. *Metabolic Engineering* 54: 222-231 (**\*C-corresponding Author**)
20. Heveran CM, Liang L, Nagarajan A, Hubler MH, Gill RT, **Cameron JC**, Cook CM, Srubar WV. (2019). The morphology and nanomechanical properties of microbial precipitated calcium carbonate can be tailored by engineered ureolytic bacteria. *Scientific Reports* 9: 14721

#### 2018

19. Liang L, Heveran C, Liu R, Nagarajan A, Gill RT, **Cameron JC**, Hubler M, Srubar WV, Cook SM. (2018). Rational Control of Calcite Precipitation by Engineered *Escherichia coli*. *ACS Synthetic Biology Article ASAP* DOI:10.1021/acssynbio.8b00194
18. Krishnan HB, Song B, Oehrle NW, **Cameron JC**, Jez JM. (2018). Impact of overexpression of cytosolic isoform of O-acetylserine sulfhydrylase on soybean nodulation and nodule metabolome. *Scientific Reports* 8: 2367

#### Prior to CU Boulder

17. Gordon GC, **Cameron JC**, Pflieger BF. (2018) Distinct and redundant functions of three homologs of RNase III in the cyanobacterium *Synechococcus* sp. PCC 7002. *Nucleic Acids Research*, doi:10.1093/nar/gky041

**2017**

16. Gordon GC, **Cameron JC**, Pflieger BF. (2017) RNA-sequencing identifies new RNase III cleavage sites in *E. coli* and reveals increased regulation of mRNA. *mBio* 8:00128-17

**2016**

15. Gordon GC, Korosh TC, **Cameron JC**, Markley AL, Begemann MB, Pflieger BF. (2016). CRISPR interference as a titratable, trans-acting regulatory tool for metabolic engineering in the cyanobacterium *Synechococcus* sp. strain PCC 7002. *Metab. Eng.* 38: 170-179
14. Shih PM, Occhialini A\*, **Cameron JC\***, Andralojc PJ, Parry MAJ, and Kerfeld CA. (2016). Biochemical characterization of predicted Precambrian RuBisCO. *Nat. Commun.* 7:10382. \*Equal contributions.

**2015**

13. Cahoon RE, Lutke WK, **Cameron JC**, Chen S, Lee SG, Rivard RS, Rea PA, Jez JM. (2015). Adaptive Engineering of Phytochelatin-based Heavy Metal Tolerance. *J. Biol. Chem.* 290:17321-17330
12. **Cameron JC**, Gordon GC, and Pflieger BF. (2015). Genomic and genetic analysis of RNases in cyanobacteria. *Photosyn. Res.* 126:171-183

**2014**

11. Clark, RL, **Cameron JC**, Root TW, and Pflieger BF. (2014) Insights into the industrial growth of cyanobacteria from a model of the carbon-concentrating mechanism. *AIChE J.* 60:1269-1277.

**2013**

10. **Cameron JC**, Wilson SC, Bernstein SL, and Kerfeld CA. (2013). Biogenesis of a Bacterial Organelle: The Carboxysome Assembly Pathway. *Cell* 155: 1131-1140.
9. Preuss ML, **Cameron JC**, Berg RH, Jez JM. (2013). Immuno-localization of glutathione biosynthesis enzymes in *Arabidopsis thaliana*. *Plant Physiol. Biochem.* 75: 9-13
8. Cai F, Sutter M, **Cameron JC**, Stanley DN, Kinney JN, and Kerfeld CA. (2013). The structure of CcmP, a tandem bacterial microcompartment domain protein from the  $\beta$ -carboxysome, forms a subcompartment within a microcompartment. *J. Biol. Chem.* 288: 16055-16063

**2012**

7. Musgrave WB, Yi H, Kline D, **Cameron JC**, Wignes J, Dey S, Pakrasi HB, Jez JM. (2012). Probing the origins of glutathione biosynthesis through biochemical analysis of a glutamate-cysteine ligase and glutathione synthetase from a model photosynthetic prokaryote. *Biochem. J.* 450: 63-72

**2011**

6. Galant A, Preuss ML, **Cameron JC** and Jez JM (2011) Plant glutathione biosynthesis: diversity in biochemical regulation and reaction products. *Front. Plant Sci.* 2:45
5. Liu H, Roose JL, **Cameron JC** and Pakrasi HB. (2011). A genetically tagged Psb27 protein allows purification of two consecutive photosystem II (PSII) assembly intermediates in *Synechocystis* 6803, a cyanobacterium. *J. Biol. Chem.* 286: 24865-24871
4. **Jeffrey C. Cameron** and Himadri B. Pakrasi (2011). Glutathione facilitates antibiotic resistance and photosystem I stability during exposure to gentamicin in cyanobacteria. *Appl. Environ. Microbiol.* 77: 3547-3550

**2010**

3. **Jeffrey C. Cameron** and Himadri B. Pakrasi (2010). Glutathione in *Synechocystis* 6803: A closer look into the physiology of a  $\Delta gshB$  mutant. *Plant Signal. Behav.* 6: 89-92
2. **Jeffrey C. Cameron** and Himadri B. Pakrasi (2010). Essential role of glutathione in acclimation to environmental and redox perturbations in the cyanobacterium *Synechocystis* sp. PCC 6803. *Plant Physiol.* 154: 1672-1685
1. Singh AK\*, Elvitigala T\*, **Cameron JC**, Ghosh BK, Bhattacharyya-Pakrasi M, and Pakrasi HB. (2010). Integrative analysis of large-scale expression profiles reveals core transcriptional response and coordination between multiple cellular processes in a cyanobacterium. *BMC Sys. Biol.* 4: 105, (\*Equal contributions; **Highly accessed article.**)

#### **Book Chapters**

- Cameron JC**, Sutter M and Kerfeld CA. (2014). The Carboxysome: Function, Structure and Cellular Dynamics. Flores F and Herrero A (Eds.). *The Cell Biology of Cyanobacteria*. Caister Academic Press, Norfolk, UK.
- Milne JL, **Cameron JC**, Page LE, Benson SM, Pakrasi HB. (2012). Algal Technologies for Biological Capture and Utilization of CO<sub>2</sub> Require Breakthroughs in Basic Research. *Perspectives on Biofuels: Potential Benefits and Possible Pitfalls. ACS Symposium Series*, 1116: 107-141.