

Address: Biodesign Center for Applied Structural Discovery and School of
Molecular Sciences
Arizona State University (ASU)
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Date of Birth: June 17, 1984

Nationality: U.S.A.

Education: ASU, Tempe, AZ (2013 – 2017)
Ph.D. Biochemistry, Cumulative GPA = 3.89
ASU, Tempe, AZ (2009 – 2013)
B.S. Biochemistry

Research Experience:

Jan 2018 – Present **Postdoctoral Research Associate**
Biodesign Center for Applied Structural Discovery and School of
Molecular Sciences, ASU, Tempe, AZ
Laboratory of Prof. Petra Fromme
Research focus: Serial femtosecond crystallography (sample
preparation team lead), cryo-electron microscopy, traditional X-ray
crystallography, improved crystallization methods, and protein
purifications of photochemical reaction centers.

May 2013 – Dec 2017 **Graduate Research Assistant**
Biodesign Center for Bioenergy and Photosynthesis and School of
Molecular Sciences, ASU, Tempe, AZ
Laboratory of Prof. Kevin E. Redding
Research focus: X-ray crystallography, ultrafast time-resolved
spectroscopy, improved crystallization, and protein purifications of
photochemical reaction centers.

Aug 2011 – Apr 2013 **Undergraduate Research Assistant**
School of Molecular Sciences, ASU, Tempe, AZ
Laboratory of Prof. Kevin E. Redding
Research focus: Protein purifications of photochemical reaction
centers.
Research focus: X-ray crystallography, ultrafast time-resolved
spectroscopy, improved crystallization, and protein purifications of
photochemical reaction centers.

Honors and Awards:

- 2017 College of Liberal Arts and Sciences Outstanding Graduate, ASU
- 2017 College of Liberal Arts and Sciences Graduate Excellence Award, ASU
- 2017 College of Liberal Arts and Sciences CLAS Leader, ASU
- 2017 Johnston Endowment Scholar award recipient, ARCS Foundation
- 2017 Richard Malkin Award recipient, Western Photosynthesis Conference
- 2012 Wayne W. Luchsinger Chemistry Scholarship recipient, ASU

Publications:

- Gisriel, C., Orf, G., & Redding, K. (2018). Evolution of photosynthetic reaction centers: insights from the structure of the heliobacterial reaction center. *Photosynthesis Research*. (<https://doi.org/10.1007/s11120-018-0503-2>)
- Gisriel, C., Saroussi, A., Ramundo, S., Fromme, P., & Govindjee (2017). Gordon Research Conference on photosynthesis: photosynthetic Plasticity from the environment to synthetic systems. *Photosynthesis Research*. (<https://doi.org/10.1007/s11120-017-0472-x>)
- Gisriel, C., Sarrou, I., Ferlez, B., Golbeck, J., Redding, K., & Fromme, R. (2017). Structure of a symmetric photosynthetic reaction center–photosystem. *Science*, 357(6355), 1021-1025.
- Herrera-Theut, K. A., Gisriel, C., Laureanti, J., Orf, G., Baker, P., Jones, A. K., & Redding, K. (2017). Evaluating the role of a multi-heme cytochrome c in electron transfer from an electrode surface to *Heliobacterium modesticaldum*. *The FASEB Journal*, 31, 913.13-913.13.
- Ferlez, B., Cowgill, J., Dong, W., Gisriel, C., Lin, S., Flores, M., Walters, K., Cetnar, D., Redding, K., & Golbeck, J. (2016). Thermodynamics of the electron acceptors in *Heliobacterium modesticaldum*: An exemplar of an early homodimeric type I photosynthetic reaction center. *Biochemistry*, 55(16), 2358-2370.

Selected Professional Presentations:

- Aug 2018 **International Symposium on Phototrophic Prokaryotes** (Vancouver, CD), speaker
- Jun 2018 **Dissertation Writing Camp** (Graduate and Professional Student Association, ASU), panel speaker
- Jan 2018 **Caltech GeoClub Seminar** (Pasadena, CA), invited speaker
- Jan 2018 **Western Photosynthesis Conference** (Oracle, AZ), speaker
- Oct 2017 **Center for Bioenergy and Photosynthesis** (ASU), invited speaker
- July 2017 **Gordon Research Conference** (Newry, ME), poster
- July 2017 **Gordon Research Seminar** (Newry, ME), invited speaker
- Jan 2017 **Western Photosynthesis Conference** (Marshall, CA), poster
- Aug 2016 **Int'l Congress on Photosynthesis Research** (Maastricht, NLD), speaker
- Apr 2016 **Center for Biological Physics**, Graduate Seminars (ASU), invited speaker
- Jan 2016 **Western Photosynthesis Conference** (Devil's Ranch, CO), speaker

Summary of Instruction Experience:

- Biochemistry 463**, Teacher's Assistant, ASU, Fall 2017
- Biochemistry 463**, Teacher's Assistant, ASU, Spring 2017
- Biochemistry 462**, Teacher's Assistant, ASU, Spring 2016
- Biochemistry 392**, Graduate Mentor for Kathryn Herrera-Theut, ASU, Spring 2016
- Biochemistry 392**, Graduate Mentor for Kathryn Herrera-Theut, ASU, Fall 2015
- Biochemistry 462**, Teacher's Assistant, ASU, Spring 2015
- Biochemistry 392**, Graduate Mentor for Dustin Luu, ASU, Spring 2015
- Biochemistry 392**, Graduate Mentor for Dustin Luu, ASU, Fall 2014
- Biochemistry 463**, Teacher's Assistant, ASU, Spring 2014
- Biochemistry 462**, Teacher's Assistant, ASU, Fall 2013

Selected Press:

- Apr 2018 **EurekaAlert!**, "ASU team discovers a new take on early evolution of photosynthesis"
https://www.eurekaalert.org/pub_releases/2018-04/asu-atd042318.php
- Dec 2017 **Arizona State University** (video), "Outstanding Graduate Fall 2017: Christopher Gisriel"
https://www.youtube.com/watch?v=Au1VOr25EjY&feature=player_embedded
- Oct 2017 **Wired Magazine**, "Scientists are rewriting the history of photosynthesis"
<https://www.wired.com/story/scientists-are-rewriting-the-history-of-photosynthesis/>
- Oct 2017 **Advanced Photon Source**, "The Origins of Photosynthesis in a Sun-loving Bacteria"
<https://www.aps.anl.gov/APS-Science-Highlight/2017/the-origins-of-photosynthesis-in-a-sun-loving-bacteria>
- Oct 2017 **Quanta Magazine**, "Simple Bacteria Offer Clues to the Origins of Photosynthesis"
<https://www.quantamagazine.org/simple-bacteria-offer-clues-to-the-origins-of-photosynthesis-20171017/>
- Oct 2017 **Arizona State University** (video), "Chris Gisriel, Ph.D. Biochemistry, 2017 - ASU School of Molecular Sciences"
<https://www.youtube.com/watch?v=fxlrQjt-f0k&feature=share>
- Oct 2017 **Advanced Light Source**, "Exploring the Roots of Photosynthesis in a Soil-Dwelling Bacterium"
<https://als.lbl.gov/exploring-roots-photosynthesis-soil-dwelling-bacterium/>
- Aug 2017 **Arizona State University**, "ASU team shines new light on photosynthesis"
<https://asunow.asu.edu/20170825-asu-team-shines-new-light-photosynthesis>

Membership and Service:

- 2018 – Present Ad hoc reviewer: Geobiology
- 2018 – Present BioXFEL Scholar
- 2017 – Present Achievement Rewards for College Scientists (ARCS) Scholar

Additional Information:

- 2013 – 2014 Founder and past President of SSAO student organization at ASU
- 2003 – 2016 3/116th Light Infantry, VA Army National Guard (Afghanistan) Battalion
Unit Logistics Specialist, (2003-2006)

Ph.D. Advisor: Kevin E. Redding
School of Molecular Sciences, Physical Sciences D-wing room 323, ASU,
Tempe, AZ 85297-1604, U.S.A.