

**ELIZABETH A. KARR**

Department of Microbiology and Plant Biology  
University of Oklahoma Graduate College  
Price Family Foundation Institute of Structural Biology  
University of Oklahoma  
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**APPOINTMENTS**

- Associate Dean, Graduate College and Office of Postdoctoral Affairs, University of Oklahoma, July 2020-present.
- Associate Professor, Microbiology, University of Oklahoma, July 2014-present.
- Graduate Liaison and Graduate Program Director, Microbiology and Plant Biology, University of Oklahoma, January 2017-June 2020.
  - Graddy Award-Awarded by the Graduate College to Acknowledge Graduate Liaisons who go above and beyond in support of students.
- Associate Director, Price Family Foundation Institute of Structural Biology. February 2014-present.
- Assistant Professor, Microbiology, University of Oklahoma, August 2007-June 2014.

**EDUCATION AND RESEARCH EXPERIENCE**

- The Ohio State University, NSF Postdoctoral Fellow, *Microbiology*, 2003-2007.
- Southern Illinois University, Carbondale, IL, Doctor of Philosophy, *Microbiology*, August 2003.
- Murray State University, Murray, KY, Bachelor of Science, *Biology*, May 1999.
  - *Outstanding Senior in Biology*, Murray State University, May 1999
  - *Gamma Beta Phi Leadership Award*, Murray State University, May 1999
- Paducah Community College, Paducah, KY, Associates of Science, May 1997.

**ASSOCIATE DEAN OF GRADUATE COLLEGE**

- Committee Member, Campus-Wide Graduate Student Support Committee. (November 2020 -Present).
- Faculty Advisor, Bridge the Doctorate/LSAMP Scholars Program. (September 2020 - Present).
- Special Institutional Assignment, Launch of Office of Postdoctoral Affairs.  
Communication regarding the launch of the office, started assembling the Postdoc Advisory Committee, worked, and coordinated with OU postdoc association, coordinate National Postdoc Appreciation Week events, developed a web presence for the office.
- Committee Member, Provost Initiative-Holistic Admissions Training Development. (September 2020 -Present).
- Faculty Advisor Accelerate to Industry Program. (September 2020 - Present).
- Committee Chair, Graduate Council Travel and Research Subcommittee. (AY2020-2021, AY 2021-2022)
- Committee Chair, Graduate Council Course and Programs Subcommittee. (Fall 2021).

- Project Lead, Survey and Classification of Non-Thesis Master's Degrees. (August 2020 – May 2021).  
Cataloged culminating experiences and classified (academic vs. professional) non-thesis master's program at OU. (July 2020 - Present).
- Host, Graduate College Virtual Coffee Chats with Graduate Students and Postdocs-Fall 2020-present
- Host, Graduate College Virtual Office Hours for Graduate Program Leadership-2020-2021.
- Project Coordinator and Policy Development SHARE OK Errata Policy. (September 2020 - December 2020).  
Worked with OU libraries, the Provost's Office, and the Office of Research Services to develop an Errata policy for Dissertations and Theses in SHAREOK.
- Workshop Organizer, Graduate College Brown Bag for Graduate Student Support
- Project Participant, Doctoral Committee Role Best Practices and Communications Development. (October 2020).  
Drafted targeted communication to doctoral committee members outlining the expectations of their designated role on a particular student committee.  
Drafted website language on doctoral committee best practices.
- Panelist, Postdoc Appreciation Week: Virtual Interviewing Skills. (September 2020).
- Panelist, Postdoc Appreciation Week: Art of Negotiation in Academic Positions. (September 25, 2020).
- Workshop Organizer, Postdoc Appreciation Week: Art of Negotiation in Academic Positions. (September 22, 2020).
- Guest Speaker, OU New Faculty Orientation on Graduate College. (September 22, 2020, August 17, 2021).
- Workshop Organizer, NSF Graduate Research Fellowship Virtual Two-Part Information Series. (September 2020 and September 2021).  
Hosted one-session with Georgia Kosmopoulou, presenting on eligibility and requirements. Hosted a panel session of faculty that have served as NSF GRFP reviewers to answer questions, point out important aspects of the review process. Assembled a Canvas course for students applying that included recordings of the live events and sample applications that were successful.
- Panelist, Graduate College Welcome Week: Making the Most of Graduate School. (August 2020, August 2021).
- Panelist, New Graduate Teaching Assistant Training: Assessment Best Practices. (June 2020, May 2021).

#### **PUBLICATIONS IN PREPARATION (\*indicates corresponding author)**

- Chanderban, M. and **E.A. Karr\***. A two-component signaling system is essential for growth of *Methanococcus maripaludis* on formate. Planned submission to Molecular Microbiology.
- Isom, C.E., S.K. Menon, G.B. Richter-Addo, A.H. West, and **E.A. Karr\***. Crystal structure and DNA functional analysis of an HxIR/DUF24 family transcription regulator, CdTR\_3200 from hypervirulent *Clostridioides difficile* R20291. Planned submission to Protein Science. Product PDB ID 7KD3.

- Dinh, D., E. Moore, L.M. Thomas, N. Wofford, M.J. McInerney, **E.A. Karr\***. The Structure (and Functions) of Putative 3-hydroxypimelyl-CoA Dehydrogenase (Hcd1) from *Syntrophus aciditrophicus* strain SB. PDB ID: 7SUB, In preparation
- Dinh, D., S. Yaghoubi, L.M. Thomas, N. Wofford, M.J. McInerney, **E.A. Karr\***. Functional and Structural Characterization of AMP-forming Acetyl-CoA Synthetase (Acs1) from *Syntrophus aciditrophicus* strain SB. In preparation.

#### **PUBLICATIONS (\*indicates corresponding author)**

- James, K.L., J.W. Kung, B.R. Crable, H. Mouttaki, J.R. Sieber, H.N. Nguyen, Y. Yang, Y. Xie, J. Erde, N.Q. Wofford, **E.A. Karr**, J.A. Loo, R.R. Ogorzalek Loo, R.P. Gunsalus and M.J. McInerney\*. 2019. *Syntrophus aciditrophicus* uses the same enzymes in a reversible manner to degrade and synthesize aromatic and alicyclic acids. *Environ Microbiol*, 21: 1833-1846. doi:[10.1111/1462-2920.14601](https://doi.org/10.1111/1462-2920.14601)
- Hebdon, S., S.K. Menon, **E.A. Karr**, G.B. Richter-Addo, A.W. West\*. 2018. Regulatory targets of the response regulator RR\_1586 from *Clostridioides difficile* identified using a bacterial one-hybrid screen. *J. Bacteriol.* Vol 200. DOI: 10.1128/JB.00351-18.
- Jennings, M.E., F.H. Lessner, **E.A. Karr**, D.J. Lessner\*. 2017. The [4Fe-4S] clusters of Rpo3 are key determinants in the post Rpo3/Rpo11 heterodimer formation of RNA polymerase in *Methanosarcina acetivorans*. *Microbiol. Open*. DOI: 10.1002/mbo3.399.
- Isom, C.E., S.K. Menon, L.M. Thomas, A.H. West, G.B. Richter-Addo and **E.A. Karr\***. 2016. Crystal structure of a PadR family transcription regulator from hypervirulent *Clostridium difficile* R20291. *BMC Microbiol.* 16:231.
- Wang, B., S.M. Powell, N. Hessami, F.Z. Najar, L.M. Thomas, **E.A. Karr**, A.H. West, G.B. Richter-Addo\*. 2016. Crystal structures of two nitroreductases from hypervirulent *Clostridium difficile* and functionally related interactions with the antibiotic metronidazole. *Nitric Oxide: Biol. Chem.* 60:32-39.
- James, K.L., L.A. Ríos-Hernández, N.Q. Wofford, H. Mouttaki, J.R. Sieber, C.S. Sheik, H.N. Nguyen, Y. Yang, Y. Xie, J. Erde, L. Rohlin, **E.A. Karr**, J.A. Loo, R.R. Ogorzalek-Loo, G.B. Hurst, R.P. Gunsalus, L.I. Szweda, and M.J. McInerney\*. 2016. Pyrophosphate-Dependent ATP Formation from Acetyl Coenzyme A in *Syntrophus aciditrophicus*, a New Twist on ATP Formation. *mBio* 7.
- Sheehan, R.C., A.C. McCarver, C.E. Isom, **E.A. Karr\***, and D.J. Lessner\*. 2015. The *Methanosarcina acetivorans* thioredoxin system activates DNA binding of the redox-sensitive transcriptional regulator MsvR. *J. Ind. Microbiol. Biotechnol.* 42:965-969.
- **Karr, E. A.\*** 2014. Transcription Regulation in the Third Domain. *Adv. Appl. Microbiol.* Chapter 3, Vol 89:101-133.
- C.E. Isom, J.L. Turner, D.J. Lessner, **E.A. Karr\***. 2013. Characterization of the *Methanosarcina acetivorans* C2A MsvR homologue reveals functional diversity of MsvR within methanogens. *BMC Microbiol.* 13:163.
- Islam, S., **E.A. Karr.\*** 2013. Examination of Metal Corrosion by *Desulfomicrobium thermophilum*, *Archaeoglobus fulgidus*, and *Methanothermobacter thermautotrophicus*. *BIOS*, 84.

- Cafasso, J., B.A. Manjasetty, **E.A. Karr**, K. Sandman, M.R. Chance and J.N. Reeve. 2010. Preliminary crystallography confirms that the archaeal DNA-binding and tryptophan-sensing regulator, TrpY, is a dimer. *Acta Cryst.* F66, 1493-1495.
- **Karr, E.A.\*** 2010. The methanogen-specific transcription factor MsvR regulates the adjacent *fpaA-rlp-rub* oxidative stress operon in *Methanothermobacter thermautotrophicus*. *J. Bacteriol.* 192 5914-5922.
- Dunn, A.K.\*, **E.A. Karr**, Y. Wang, A. Batton, E. Ruby, and E. Stabb. 2010. The alternative oxidase (AOX) gene in *Vibrio fischeri* is controlled by NsrR and upregulated in response to nitric oxide stress. *Mol. Microbiol.* 77: 44-55.
- Walker, C., J. de la Torre, M. Klotz, H. Urakawa, N. Pinel, D. Arp, C. Brochier-Armanet, P. Chan, A. Golabgir-Anbarani, J. Hemp, M. Hügler, **E.A. Karr**, M. Könneke, M. Shin, T. Lowe, W. Martens-Habena, L. Sayavedra-Soto, D. Lang, S. Sievert, A. Rosenzweig, G. Manning, and D. Stahl. 2010. The *Nitrosopumilus maritimus* genome reveals unique mechanisms for nitrification and autotrophy in globally distributed marine Archaea. *Proc. Natl. Acad. Sci. U. S. A.* 107: 8818-8823.
- **Karr, E.A.**, K. Sandman, R. Lurz, and J.N. Reeve. 2008. TrpY Regulation of *trpB2* Transcription in *Methanothermobacter thermautotrophicus*. *J. Bacteriol.* **190**: 2637-2641.
- Cubonova, L., K. Sandman, **E.A. Karr**, A. Cochran, and J.N. Reeve. 2007. Mutational Analysis of the archaeal regulator TrpY. *J. Bacteriol.* 189: 4338-4342.
- **Karr, E.A.**, W.M. Sattley, S.M. Belchik, M.T. Madigan, and L.A. Achenbach. 2006. Biodiversity of methanogenic and other *Archaea* in the permanently frozen Lake Fryxell, Antarctica. *Appl. Environ. Microbiol.* 72: 1663-1666.
- **Karr, E.A.**, W.M. Sattley, M.R. Rice, D.O. Jung, M.T. Madigan, and L.A. Achenbach. 2005. Diversity and distribution of sulfate-reducing bacteria in the permanently frozen Lake Fryxell, McMurdo Dry Valleys, Antarctica. *Appl. Environ. Microbiol.* 71: 6353-6359.
- Jung, D.O., L.A. Achenbach, **E.A. Karr**, S. Takaichi, and M.T. Madigan. 2004. A gas vesiculate planktonic strain of the purple nonsulfur bacterium *Rhodospirillum rubrum* isolated from Lake Fryxell, Dry Valleys, Antarctica. *Arch. Microbiol.* 182: 236-243.
- **Karr, E.A.**, W.M. Sattley, D.O. Jung, M.T. Madigan, and L.A. Achenbach. 2003. Remarkable diversity of phototrophic purple bacteria in a permanently frozen Antarctic lake. *Appl. Environ. Microbiol.* 69: 4910-4914.

## BOOK CHAPTERS

- **Karr, E.A.**, C.E. Isom, V. Trinh and E. Peeters. 2017. Transcription factor-mediated gene regulation in *Archaea*. In: *Nucleic Acids and Molecular Biology*, Vol. RNA metabolism and gene expression in Archaea, Béatrice Clouet-d'Orval (ed). Vol. 32, Springer, Cham, pp 27-69.
- Madigan, M.T., D.O. Jung, **E.A. Karr**, W.M. Sattley, L.A. Achenbach, and M. van der Meer. 2005. Diversity of anoxygenic phototrophs in contrasting extreme environments. In: *Geothermal Biology and Geochemistry in Yellowstone National Park*. W. Inskeep (ed). Thermal Biology Institute, Montana State University.

## ORAL AND POSTER PRESENTATIONS

### *Related to Research Program*

Numerous [invited seminars](#) and over forty [posters](#) presented at regional, national and international conferences over eighteen years.

### *Related to Graduate Education*

Irvin, S., R. Bates, W. Bush, **E.A. Karr**, & K. Shea Smith. Academic Life Coaching to Promote Graduate Student Thriving, Graduate Student Success and Wellness Conference, May 7, 2021.

Irvin, S., R. Bates, W. Bush, **E.A. Karr**, & K. Shea Smith. Academic Life Coaching to Promote Graduate Student Thriving, Coaching in Higher Education Consortium 2021 Virtual Conference, July 30, 2021.

## FUNDING HISTORY

### *Pending*

- **DOE Basic Energy Sciences (submission by Feb 1, 2022)**  
**Karr, E.A.** (PI), Duin, E. (Co-PI)  
Project Title: ***Living on the Edge***: Energy Conservation and Electron Flow in Syntrophic Metabolism, \$600,000, July 15, 2022-July 14, 2025.

### *Current*

- **Oklahoma State University/National Science Foundation**  
**Karr, E.A.** (PI, subaward)  
Project Title: Louis Stokes STEM Pathways and Research Alliance: OK-LSAMP Alliance Phase VI, \$96,000, August 1, 2021-July 31, 2022.
- **DOE Basic Energy Sciences**  
**Karr, E.A.** (PI), McInerney, M.J. (Co-PI)  
Project Title: Electron Flow and Energy Conservation in Syntrophic Metabolism, \$109,548, July 15, 2021-July 14, 2022.
- **Givaudan**  
**McInerney, M.J. (PI), Karr, E.A. (Co-PI)**  
Project Title: Biological Production of a Base Flavor Chemical, \$49,186, January 13, 2022-July 12, 2022

### *Previous*

- **DOE Basic Energy Sciences**  
**Karr, E.A.** (PI), McInerney, M.J. (Co-PI),  
Project Title: Electron Bifurcation and Pyrophosphate-Mediated Energy Conservation in *Syntrophus aciditrophicus*, \$449,000, January 15, 2018-July 14, 2021.
- **National Science Foundation: Research Experience for Undergraduates**  
Sims, P.A., (PI,); Schroeder, S.J. (Other Key Participant, OKP), Bartley, L.E.

(OKP), Burgett, A.W. (OKP), **Karr, E.A.** (OKP), Richter-Addo, G.B. (OKP), West, A.H. (OKP)

Project Title: REU Site: Program in Structural Biology at the University of Oklahoma, Oct 1, 2014-September 30, 2017

- **National Institutes of Health Center of Biomedical Research Excellence in Structural Biology**  
West, A.H. (PI), **Karr, E.A.** (JI)  
Project Title: Structure-Function Studies of MsvR, a Methanogen-Specific Transcriptional Regulator, \$750,000 direct costs, August 1, 2012 to August 31, 2017
- **Price Family Foundation** (private donor)  
West, A.H. (PI), **Karr, E.A.** (co-PI), Richter-Addo, G.B. (co-PI)  
Anaerobic Structural Biology, \$1,300,000 direct costs, February 2014-March 2017  
This private donation funded a collaborative project between OU and Albert Einstein College of Medicine focused on X-ray structure determination of selected protein targets from the anaerobic microbe *Clostridium difficile*.
- University of Oklahoma Research Council PI Research Investment Grant  
**Karr, E.A.** (PI)  
Project Title: Analysis of Gene Expression Patterns in a Methanogen, \$8600, June 2012-May 2013.
- CAS IT Grant  
**Karr, E.A.** (PI), Dunn, A.K. (Co-PI)  
Project Title: Request for Tablet PC Upgrades for Teaching Upper Division Science Courses, \$4468.00, Fall 2011
- CAS Junior Faculty Summer Fellowship  
**Karr, E.A.** (PI)  
Project Title: Regulation of Biofilm Formation in Methanogens, \$7000.00, June 2011
- **National Science Foundation Starter Grant**  
**Karr, E.A.** (PI)  
Project Title: Molecular Analysis of Transcription Regulation in the archaeon *Methanothermobacter thermautotrophicus*, \$50,000.00, Sept. 2008-Aug. 2010
- CAS Junior Faculty Summer Fellowship  
**Karr, E.A.** (PI)  
Project Title: Metal Dependent Regulation of Oxidate Stress in The Archaeon *Methanothermobacter thermautotrophicus*, \$6000.00, June 2009
- University of Oklahoma Research Council PI Research Investment Grant  
**Karr, E.A.** (PI)  
Project Title: Development of an *in vitro* transcription system for *Nitrosopumilus maritimus*, \$8028, April 2008-April 2009
- **National Science Foundation Postdoctoral Fellowship in Microbiology**  
**Karr, E.A.** (PI)  
Project title: Identification and Characterization of regulators of transcription in prokaryotic *Archaea*, \$100,000.00, January 2005- February 2007

### *Travel Awards*

- *National Science Foundation Travel Award*, June 2009: NSF Joint Annual Meeting
- *National Science Foundation Selected Participant, ADVANCE Transforming the Professoriate: Preparing Women for Academic Careers in Science and Engineering*, Virginia Tech, July 2006

## **TEACHING**

- Physiology of Microorganisms (MBIO 4853/4853G) – Spring 2018, Spring 2020, Spring 2021
- Cases in Medical Microbiology (MBIO 4810/4873) – Fall 2016, Fall 2017, Fall 2018, Fall 2019
- Molecular Biology (BIOL/MBIO/PBIO 4843/5843) – Fall 2008, Spring 2009, Spring 2010, Spring 2011, Spring 2012, Spring 2013, Spring 2014, Fall 2014, Spring 2017
- Honors Introduction to Biotechnology (HON 3513)– Fall 2010, Fall 2011, Fall 2012
- Practical Bioinformatics (MBIO/PBIO 3673)– Spring 2016
- Advanced Molecular Biology (MBIO/PBIO 5883) – Fall 2015 – OU
- MBIO Graduate Seminar (MBIO 5971)– Spring 2008, Fall 2013, Spring 2018 – OU
- Scientific Integrity (MBIO/PBIO 5810)– Fall 2009 – OU

## **SERVICE**

### *University*

- VPRP COVID-19 Research Continuity Committee, 2020
- Team Lead, Emerging Pathogenic Threats, Life Sciences and the Future of Health, OU VPRP strategic planning group, 2020
- Nancy L. Mergler and Bullard Dissertation Completion Fellowships committee, Spring 2020
- Education Abroad Advisory Committee, 2019-2020
- Research Council, 2019-2020
- Faculty Senate, 2016-2019
- Radiation Safety Committee: Fall 2009-Summer 2010
- COBRE Protein Production Core Advisory Committee, Summer 2018-present
- COBRE Faculty Mentor (Rakhi Rajan & Christina Bourne, Chemistry and Biochemistry) 2014-present
- 3-Minute Thesis preliminary round judge, Feb 2018
- 3-Minute Thesis semi-final round judge, Feb 2019
- Premedical Advisory Interview Committee: Spring 2009

### *College*

- CAS Biological Sciences Working Group, 2020
- Chair, College of Arts and Science Executive Committee, 2019-2020
- Committee A, College of Arts and Science, 2019-2020
- College of Arts and Science Dean's Executive Committee, 2018-2020

- Premedical Advisory Interview Committee: Spring 2009
- Faculty Search Committee Biochemistry Fall 2012
- Faculty Search Committee Biochemistry Fall 2013
- Faculty Search Committee Biochemistry Fall 2014

#### *Department*

- Microbiology and Plant Biology, Graduate Liaison and Graduate Program Director, Jan 2017 to June 2020
- Microbiology and Plant Biology, Graduate Committee, Chair, Jan 2017 to June 2020
- Microbiology and Plant Biology Assessment Committee, Fall 2016-June 2020
- Junior Faculty Mentor to Kara De Leon (2019-present) and Krithi Sankaranarayanan (2017-present)
- Microbiology and Plant Biology Graduate Admission, Retention and Rotation Committee, Fall 2015-Spring 2016
- Microbiology and Plant Biology Biotechnology Committee, Spring 2014-Summer 2017
- Faculty Search Committee, Plant Biology, Fall 2010
- Microbiology and Plant Biology External Speakers Committee: Fall 2010-Summer 2017, Fall 2018-present
- Microbiology and Plant Biology Safety Committee: Fall 2008
- Microbiology and Plant Biology, Website Migration Committee, Chair: Fall 2011-Spring 2016
- Microbiology Undergraduate Student Advising, Fall 2011, Spring 2012, Fall 2012, Spring 2012, Fall 2013, Spring 2014, Fall 2014, Fall 2015, Spring 2016, Fall 2016, Spring 2017
- Faculty Search Committee Microbiology 2015-2016, Chair
- Faculty Search Committee, Microbiology, Fall 2019

#### *External Service*

- Panelist: NSF Antarctic/Polar Programs, 2011
- Panelist: DOE Office of Basic Research, Basic Energy Sciences Physical Biosystems, 2019
- Panelist: USDA NRI Biobased Products and Bioenergy Production Research Program, 2008 and 2009
- Ad Hoc Reviewer for – Microbiology, Journal of Bacteriology (1 for 2021), Molecular Microbiology, Nucleic Acids Research, BMC Genetics, Astrobiology, Environmental Science and Technology, Canadian Journal of Microbiology, Journal of Visualized Experiments, Environmental Microbiology, PLOS One, NSF Antarctic/Polar Programs, DOE Early Career Programs, DOE Basic Energy Sciences Physical Biosystems, NSF Molecular and Cellular Biology
- Review Editor, Frontiers in Microbial Physiology and Metabolism, 2012-present
- Reviewer: 5th Comprehensive Review of the MCAT Exam
- Biotechnology Curriculum Advisory Committee, Moore Norman Technology Center: 2009 to 2019



- Associate Editor, Antonie van Leeuwenhoek Journal, Anaerobic Bacteria Section, 2020 to present

## POSTDOCTORAL AND GRADUATE ADVISEES

### *Current*

1. David Dinh: October 2016-present, Ph.D. student
2. Selena Yaghoubi, October 2019-present, Ph.D. student

### *Past*

3. Zane Mills, August-December 2019, M.Sc. student
4. Christine Woelfel-Monsivais: 2019, Microbiology Non-thesis M.Sc. student
5. Jessica Turner: Fall 2009- Fall 2011, M.Sc. student
6. Chrystal Moore: Fall 2009-Summer 2011, M.Sc. student, LSAMP Bridge the Doctorate Fellow
7. Alyssa Grossen: Fall 2013-Spring 2014, M.Sc. student
8. Kristen Shelton: Fall 2013-Summer 2017, M.Sc. student
9. Kylie Gilcrest: Fall 2014-Fall 2016, M.Sc. student
10. Jack Lee: Spring 2015-Spring 2017, Microbiology Non-thesis M.Sc. student
11. Catherine Isom: August 2012-July 2017, Postdoctoral Researcher
12. Vy Trinh: January 2015-January 2017, Postdoctoral Researcher

## GRADUATE ADVISORY COMMITTEES

### *Current*

1. Selena Yaghoubi, Microbiology and Plant Biology, Ph.D. Karr Lab, *Chair*
2. David Dinh, Microbiology and Plant Biology, Ph.D. Karr Lab, *Chair*
3. Cansu Demirel, Geology, Ph.D. Megan Elwood-Madden Lab, *Graduate College Representative*
4. Samuel Miller, Microbiology and Plant Biology, Ph.D. Sankaranarayanan Lab, *Member*
5. Savannah Morris, Chemistry and Biochemistry Ph.D. West Lab, *Graduate College Representative*
6. Marcee Olvera, Chemistry and Biochemistry Ph.D. Zgurskaya Lab, *Graduate College Representative*
7. Pete Pickens, Microbiology and Plant Biology, M.Sc., De Leon Lab, *Member*
8. Chhandosee Ganguly, Chemistry & Biochemistry, Ph.D., Rajan Lab, *Graduate College Representative*
9. Chase Roedl, Chemistry and Biochemistry Ph.D. Zgurskaya Lab, *Graduate College Representative*
10. Kaushika Premachandra, Chemistry and Biochemistry Ph.D. Rybenkov Lab, *Graduate College Representative*

### *Past*

11. Emily Junkins, Microbiology and Plant Biology, Ph.D., Stevenson Lab, *Member*
12. Shannon Fulton, Microbiology and Plant Biology, M.Sc., Lawson Lab, *Member*
13. Annie Doyle, Microbiology and Plant Biology, M.Sc., Lawson Lab, *Member*
14. Viridiana Herrera, Chemistry & Biochemistry, Ph.D., Richter-Addo Lab, *Graduate College Representative*
15. April Alloway, Chemistry and Biochemistry Ph.D. Duerfeldt Lab, *Graduate College Representative*
16. April Clevenger, Chemistry and Biochemistry Ph.D. Rybenkov Lab, *Graduate College Representative*
17. Skyler Hebdon, Chemistry & Biochemistry, Ph.D., West Lab, *Graduate College Representative*
18. Kristen Shelton, Microbiology and Plant Biology, M.Sc., Karr Lab, *Chair*
19. Kylie Gilcrest, Microbiology and Plant Biology, M.Sc., Karr Lab, *Chair*
20. Jack Lee, Microbiology and Plant Biology, Non-thesis M.Sc., *Chair*
21. Jessica Turner Harper, Microbiology and Plant Biology, M.Sc., Karr Lab, *Chair*
22. Feifei Liu, Microbiology and Plant Biology, Ph.D., Zhou Lab, *Member*
23. Emily N. Kennedy, Chemistry & Biochemistry, Ph.D., West Lab, *Graduate College Representative*
24. Erwin Abucayon, Chemistry & Biochemistry, Ph.D., Richter-Addo Lab, *Graduate College Representative*
25. Caitlin Crowder, Chemistry & Biochemistry, Ph.D., Burgett Lab, *Graduate College Representative*
26. Jessica Sieber, Botany and Microbiology, Ph.D., McInerney Lab, *Member*
27. Shuo Lu, Chemistry & Biochemistry, Ph.D., Zgurskaya Lab, *Graduate College Representative*
28. Chuck Smallwood, Chemistry & Biochemistry, Ph.D., Klebba Lab, *Graduate College Representative*
29. Catherine Bishop Isom, Microbiology and Plant Biology, Ph.D., Tanner Lab, *Member*
30. Yue Huang, Microbiology and Plant Biology, M. Sc., Zhou Lab, *Member*
31. Bryan Crable, Microbiology and Plant Biology, Ph.D., McInerney Lab, *Member*
32. Brittany Kitchens, Chemistry & Biochemistry, Ph.D., West lab, *Graduate College Representative*
33. Huynh Le, Microbiology and Plant Biology, M.Sc., McInerney Lab, *Member*
34. Anjumala P. Herath, Microbiology and Plant Biology, M.Sc., Callaghan Lab, *Member*
35. Peter Bradstock, Microbiology and Plant Biology, Ph.D., Krumholz Lab, *Member*
36. Chamindika Siriwardana, Microbiology and Plant Biology, Ph.D., Holt Lab, *Member*
37. James Creecy, Microbiology and Plant Biology, Ph.D., Conway Lab, *Member*
38. Katie Branscum, Chemistry & Biochemistry, Ph.D., West Lab, *Graduate College Representative*
39. Katie Sharp, Chemistry & Biochemistry, Ph.D., Bourne/Singh Lab, *Graduate College Representative*
40. Varsha Jhavar, Chemistry & Biochemistry, Ph.D., Zgurskaya Lab, *Graduate College Representative*
41. Rachel Bosun, Chemistry & Biochemistry, Ph.D., West Lab, *Graduate College Representative*
42. Christine Woelfel-Monsivais: 2019, Microbiology and Plant Biology, Non-thesis M.Sc., *Chair*

43. Annie Doyle, Microbiology and Plant Biology, M.Sc., Lawson Lab, *Member*
44. Ma Hongyan, Chemistry & Biochemistry, Ph.D., Wu/Cichewicz Lab, *Graduate College Representative*
45. Casey Stevens, Chemistry & Biochemistry, Ph.D., Zgurskaya Lab, *Graduate College Representative*
46. Mason J. VanOrden, Chemistry & Biochemistry, Ph.D., Rajan Lab, *Graduate College Representative*
47. Hari Priya Parameshwaran, Chemistry & Biochemistry, Ph.D., Rajan Lab, *Graduate College Representative*
48. Sogol Salary, Planning Design and Construction, Ph.D. Reyes Group, *Graduate College Representative*
49. Adwaita Parab, Microbiology and Plant Biology, M.Sc., McCall Lab, *Member*

### **UNDERGRADUATE RESEARCH ADVISEES**

1. Eric Moore, 2019 FYRE program participant
2. Vy Dinh, 2018-2019, Undergraduate Research
3. Rohan Moghe, 2018-2019, FYRE program participant, Honors Research
4. Makenzie Bender, 2017- 2018, Undergraduate Research
5. Dominic Cortassa, 2017- 2018, Senior Thesis
6. Riya Koshi, Summer 2017, NSF REU Structural Biology Participant
7. Hannah Malone, Summer 2016, NSF REU Structural Biology Participant
8. Moriah Chen, Spring 2016, Honors FYRE program participant
9. Gabriel Dunbar, Summer 2015, NSF REU Structural Biology Participant
10. Melissa Chanderban, 2014- 2017, Honors Research, Senior Thesis, *NSF Graduate Fellowship Recipient for a Karr Lab project*
11. Lillian Flannigan, Fall 2013, Spring 2014 Honors Research
12. Alyssa Grossen, Fall 2012, Spring 2013 Honors Research
13. Jenny Perry, Fall 2012, Spring 2013 Honors Research
14. Rachel Wilson, 2012, Honors Research
15. Patrick Block, 2012, Honors Research
16. Julianne Bonifield, 2011, Honors Research
17. Chelsea House, 2010, Honors Research
18. Namisha Thapa, 2010, Honors Research
19. Jessica Turner, 2008-2009, Undergraduate Research
20. Ashley Robbins, 2008-2010, Honors Research
21. Marika Sauter, 2008-2009, Honors Research
22. Evan Francis, Fall 2009, Undergraduate Research
23. Shaer Islam: 2008, Senior Thesis

### **PROFESSIONAL DEVELOPMENT**

- DOE Basic Energy Sciences Physical Biosciences PI Meeting, 2018, 2020
- OU Graduate College Workshop: Graduate Student Mentoring, Spring 2018

- OU Graduate Workshop: Graduate Student and Postdoc Mental Health: A Discussion for Faculty
- OU Symposium for Structural Biology, 2013-2019
- NIH, NIGMS 6th Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE), 2014, 2016
- Gordon Research Conference on Archaea: Ecology, Metabolism & Molecular Biology, 2003, 2007, 2009, 2011, 2013, 2015 (invited speaker)
- X-ray Methods in Structural Biology, Cold Spring Harbor Lab, New York, October 2013
- RapiData Collection & Structure Solving. A practical course in macromolecular X-ray diffraction measurement. Brookhaven National Lab. April 20-26, 2013
- Gordon Research Conference on Microbial Stress Response, South Hadley, MA July 2010
- National Science Foundation: Joint Annual Meeting, Washington, D. C., June 2009
- Society for Industrial Microbiology Annual Meeting, San Diego, CA, August 2008
- Annual Meeting of the American Society for Microbiology, 2001, 2002, 2003, 2007
- Women in Higher Education: Career Strategies for Entering the Workplace, The Ohio State University, January 2007
- Extremophiles, Brest, France, September 2006
- Transforming the Professoriate: Preparing Women for Academic Careers in Science and Engineering, Virginia Tech, July 2006
- Midwest Molecular Microbial Ecology Meeting, Dekalb, Illinois, July 2000

## OUTREACH AND BROADER IMPACTS

- Math Graduate Student Club Faculty Panel: "How to build effective mentoring relationships", Fall 2019
- Academic Tech Expo: Faculty Panel on Implementation of Gradescope, Spring 2019
- Biotechnology Curriculum Advisory Committee, Moore Norman Technology Center: 2009 to 2019
- Life at the Extremes. Presentation to 6<sup>th</sup>-grade science classes at Whittier Middle School, Norman, OK. May 2018
- Lab host for Honor's College Four Year Research Experience Program, Spring 2016 and Spring 2018
- Lab host for NSF Research Experience for Undergraduate in Structural Biology students, Summer 2015, 2016, 2017
- Lab host for a John Marshall High School minority senior with an interest in Research. 2016-2017 academic year
- Navigating the Sciences at OU. Presentation to Moore Norman Technology Center Biotechnology Program high school students. April 2015
- Becoming a scientist. Presentation to 3<sup>rd</sup> grade science classes at Trinity Lutheran School, Norman, OK. March 2014
- Life at the extremes. Presentation to 1st-3<sup>rd</sup> grade science classes at Trinity Lutheran School, Norman, OK. April 2012

- Biology of Archaea. Presentation to Environmental Microbiology and Biotechnology undergraduate summer course at OU. July 2011
- Science in the Karr Lab. Presentation to Moore Norman Technology Center Biotechnology Program high school students. December 2010
- Host to NSF Bridge to the Doctorate graduate student, 2009-2011
- Host to NSF REU students in Structural Biology, 2015-2017
- An Antarctic Adventure. Presentation to Pre-K class at St. Josephs Early Childhood Development Center, Norman, OK. November 2008
- Become a Pen Pal with a Scientist in the Antarctic. 1<sup>st</sup> and 3<sup>rd</sup>-grade classes at Heath Elementary School, Paducah, KY. November/December 2001
- An Antarctic Adventure with a Dutrow Alumnus. All grades at Dutrow Elementary School, Newport News, VA. November/December 2001

### **PROFESSIONAL SOCIETIES**

- American Society for Microbiology
- American Chemical Society
- Oklahoma Structural Biology Nexus