

Kimberly Renee Shorter

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Education

Ph.D. Biological Sciences	University of South Carolina	2014
B.S. Biology, B.S. Chemistry	Converse College	2009

Professional Appointments

Associate Professor of Biology	University of South Carolina Upstate	2021-Present
Assistant Professor of Biology	University of South Carolina Upstate	2015-2021
Postdoctoral Associate	University of Florida College of Medicine- McKnight Brain Institute	2014-2015

Peer-Reviewed Journal Publications (*Undergraduate Researcher, USC Upstate Student*)

1. Edwards, N., Goodwin, R., McPhail, B., Fowler, L., Lowe, L., Driggins, S., Igwe, N. Harris, R., Shorter, K., Gao, Z., Chosed, R., Khalil, M., and T. Nathaniel. 2024. Evaluating the importance of mentoring in undergraduate research education programs. *International Journal of Aging and Human Development*.
<https://doi.org/10.1177/00914150241253243>
2. *Daniel Clark, Rachael Schmelz, Nicole Rogers, Nuri Smith* and **Kimberly R. Shorter**. 2021. Acute high folic acid treatment in SH-SY5Y cells with and without MTHFR function leads to gene expression changes in epigenetic modifying enzymes, changes in epigenetic marks, and changes in dendritic spine densities. *PLOS ONE*.
<http://doi.org/10.1371/journal.pone.0245005> .
3. *Rahaf Al Sayed, Nicole Yadon, Nuri Smith, Daniel Clark, Gabriel Castillo, Hunter McLeod, Whitney Smith, Stewart Glenister,* and **Kimberly R. Shorter**. 2019. A 2x folic acid treatment affects epigenetics and dendritic spine densities in SHSY5Y cells. *Biochemistry and Biophysics Reports*. <http://doi.org/10.1016/j.bbrep.2019.100681>
4. *Nicole Yadon, Amy Owen, Patricia Cakora, Angela Bustamante,* April Hall-South, *Nuri Smith,* Michael R. Felder, Paul B. Vrana, and **Kimberly R. Shorter**. 2019. A high methyl donor diet affects physiology and behavior in *Peromyscus polionotus*. *Physiology and Behavior* 209: 112615. <http://doi.org/10.1016/j.physbeh.2019.112615>
5. *A'Lexsus F. Davis, Allen A. Thomas, Kimberly R. Shorter,* Stephan L. Brown, and Bradley L. Baumgarner. 2018. Cellular fatty acid level regulates the effect of tolylfluaniid on mitochondrial dysfunction and insulin sensitivity in C2C12 skeletal myotubes. *Biochemical and Biophysical Research Communications* 505(2): 392-398.
<http://doi.org/10.1016/j.bbrc.2018.09.131>
6. **Kimberly R. Shorter** and Brooke H. Miller. 2015. Epigenetic Mechanisms in Schizophrenia. *Progress in Biophysics and Molecular Biology: Epigenetics*. <http://doi.org/10.1016/j.pbiomolbio.2015.04.008>
7. **Kimberly R. Shorter**, Michael R. Felder, and Paul B. Vrana. 2015. Consequences of dietary methyl donor supplements: Is more always better? *Progress in Biophysics and Molecular Biology: Epigenetics*.
<http://doi.org/10.1016/j.pbiomolbio.2015.03.007>
8. **Kimberly R. Shorter**, *Vanessa Anderson, Patricia Cakora, Amy Owen, Krupesh Dave, Keswick Lo,* Janet P. Crossland, April C.H. South, Michael R. Felder, and Paul B. Vrana. 2014. Pleiotropic Effects of a Methyl Donor Diet in *Peromyscus maniculatus*. *Plos One* 9(8): e104942. <http://doi.org/10.1371/journal.pone.0104942>
9. **Kimberly R. Shorter**, *Amy Owen, Vanessa Anderson,* April C. Hall-South, *Samantha Hayford, Patricia Cakora,* Janet P. Crossland, *Velina R. M. Georgi,* Amy Perkins, Sandra J. Kelly, Michael R. Felder, and Paul B. Vrana. 2014. Natural Genetic Variation Underlying Differences in *Peromyscus* Repetitive and Social/Aggressive Behaviors. *Behavior Genetics* 44(2): 126-135. <http://doi.org/10.1007/s10519-013-9640-8>
10. Jane P. Kenney-Hunt, Adrienne Lewandowski, Travis C. Glenn, Julie L. Glenn, Olga V. Tsyusko, Rachel J. O'Neill, Judy Brown, Clifton M. Ramsdell, Quang Nguyen, Tony Phan, **Kimberly R. Shorter**, Michael J. Dewey, Gabor

Szalai, Paul B. Vrana, and Michael R. Felder. 2013. A genetic map of *Peromyscus* with chromosomal assignment of linkage groups (a *Peromyscus* genetic map). *Mammalian Genome* 25(3-4): 160-179. <http://doi.org/10.1007/s00335-014-9500-8> . *This article was on the cover for the issue it appeared in.

11. Paul B. Vrana, **Kimberly R. Shorter**, Gabor Szalai, Michael R. Felder, Janet P. Crossland, Monika Veres, Jasmine E. Allen, Christopher D. Wiley, Amanda R. Duselis, Michael J. Dewey and Wallace D. Dawson. 2013. *Peromyscus* (deer mice) as developmental models. *WIREs Developmental Biology*. <http://doi.org/10.1002/wdev.132>
12. **Kimberly R. Shorter**, Janet P. Crossland, *Denessia Webb*, Gabor Szalai, Michael R. Felder, and Paul B. Vrana. 2012. *Peromyscus* as a mammalian epigenetic model. *Genetics Research International* 2012: 179159. <http://doi.org/10.1155/2012/179159>

Professional Meeting Presentations (*Undergraduate Researcher, USC Upstate Student, *=Multiple Presentations*)

1. Aniyah Turner, Arlena Thompson, and Kim Shorter. Going back for seconds? You are what you eat- A tale of too much Vitamin B12. Greenville School of Medicine Annual Symposium 2024 (flash oral presentation and poster presentation).
***This work was funded by NIH R25 (to Greenville School of Medicine).**
2. Arlena Thompson, Aniyah Turner, and Kim Shorter. To B12 or not to B12: How high serum B12 affects oxidative stress in neural cells. Greenville School of Medicine Annual Symposium 2024 (flash oral presentation and poster presentation).
***This work was funded by NIH R25 (to Greenville School of Medicine).**
3. Megan Reilly, Daffney Alles, Sandra Williams, Amara Bolt, and Kim Shorter. Is your membrane running? Shocking news about miR-718, gene expression, and membrane voltage. Greenville School of Medicine Annual Symposium 2024 (flash oral presentation).
***This work was funded by SC INBRE (NIH) ER(Up)T funds.**
4. Megan Reilly, Bryson Green, Kharissa Williams, Aujah'la Elmore-Mack, Devon Espinoza Lee, and Kim Shorter. MiR-718 impacts H4 modifications involved in cancer. SC Upstate Symposium 2024 (poster).
***This work was funded by SC INBRE (NIH) ER(Up)T funds.**
5. Aujah'la Elmore-Mack, Devon Espinoza Lee, Kharissa Williams, Megan Reilly, Bryson Green, and Kim Shorter. Gene expression, epigenetic marks, and cellular stress changes induced by high Vitamin B12. SC Upstate Symposium 2024 (poster).
***This work was funded by NIH R25 (to Greenville School of Medicine).**
6. Olivia Castaneda and Kim Shorter. Vitamin B12 induces ASD and cancer-related changes to Histone 3 modifications. SC Upstate Symposium 2024 (poster).
***This work was funded by a Magellan Scholar Grant and a Magellan Mentor Award.**
7. Andres Villegas, Alexis Garcia, and Kim Shorter. MiR-718 impacts an epigenetic mark to regulate miR-132 expression: implications in ASD and cancer. SC Upstate Symposium 2024 (poster).
***This work was funded by a Magellan Scholar Grant and a Magellan Mentor Award.**
8. Kharissa Williams, Samirah Stokes, and Kim Shorter. Investigating the effects of miR-718 on GOS28/GS28 expression and vesicle movement in SH-SY5Y cells. SC Upstate Symposium 2024 (poster).
***This work was funded by a Magellan Scholar Grant, a Magellan Mentor Award, and a Research Assistantship.**
9. Aujah'la Elmore-Mack, Devon Espinoza Lee, and Kimberly R. Shorter. The effects of a 2x Vitamin B12 exposure on microRNA expression levels in a human neuronal model. 5th Annual Greenville School of Medicine Research Showcase in 2023 (poster and as an flash-talk oral presentation).
***This work was funded by NIH R25 (to Greenville School of Medicine).**
10. Mahde Alchab and Kimberly R. Shorter. Investigation of L-Methylfolate's effects on Folic Acid treated and differentiated human neuronal cells. SC Upstate Symposium 2023 (poster).
11. Aujah'la Elmore-Mack, Danielle Schmidt, and Kimberly R. Shorter. Does upregulation of miR-718 affect histone 3 (H3) modifications? SC Upstate Symposium 2023 (poster). This work was also presented at Discover SC 2023 as a poster.

***This work was funded by a Magellan Scholar Award from USC-Columbia, a Magellan Mentor award from USC Upstate, and a Research Assistantship from USC Upstate.**

12. Cameron Honeycutt, Danielle Schmidt, and Kimberly R. Shorter. The effect of miR-718 upregulation on epigenetic-modifying and epigenetic-regulating genes. SC INBRE Conference 2023 (poster). This was also presented at the SC Upstate Symposium as a poster presentation.

***This work was funded by NIH SC INBRE funds.**

13. Julia S. Lee, Aujahla Elmore-Mack, and Kimberly R. Shorter. The effects of a 2x Vitamin B12 treatment on expression of epigenetic modifying proteins in a human neuronal cell line. 4th Annual Research Showcase at Greenville School of Medicine 2022 (poster and flash-talk oral presentation). This was also presented at the SC Upstate Symposium 2022 as a poster.

***This work was funded by NIH R25 (to Greenville School of Medicine).**

14. Mahde Alchab and Kimberly R. Shorter. Does L-Methylfolate alleviate changes in autophagy induced by excess folic acid? SC Upstate Research Symposium 2022 (poster).

15. Disha Patel and Kimberly R. Shorter. Does a 2x dose of folic acid affect autophagy and expression of autophagy pathway proteins? SC Upstate Research Symposium 2022 (poster). **Note: Disha won Best Poster Presentation in MB category at the SC Upstate Research Symposium.**

16. Allen Mundok and Kimberly R. Shorter. Does a 2x dose of different Vitamin B12 forms affect Tau phosphorylation and expression of proteins that regulate Tau phosphorylation? SC Upstate Research Symposium 2022 (oral presentation). Note: Also presented at the Discover SC 2022 as a poster presentation. **Also Note: Allen won 1st place for the poster presentation at Discover SC.**

***This work was funded by a Magellan Scholar Award from USC-Columbia and a Magellan Mentor Award from USC Upstate.**

17. Desiree Williams and Kimberly R. Shorter. Does miR-718 affect PLC-B2 expression and CREB phosphorylation? SC Upstate Research Symposium 2022 (poster). Note: Also presented at Discover SC 2022 (poster).

***This work was funded by a Magellan Scholar Award from USC-Columbia and a Magellan Mentor Award from USC Upstate.**

18. Desiree Williams, Brianna Geddis, and Kimberly R. Shorter. Does IRAK1 expression affect autophagy or dendritic spines? SC INBRE Conference 2022 (online poster).

***This work was funded by INBRE NIH funds.**

19. Brooke Bennett, Cassandra D'Amico, and Kimberly R. Shorter. L-Methylfolate's effects on dendritic spines in SH-SY5Y cells. Upstate Research Symposium 2021 (poster). Note: Also presented at Discover SC 2021 (poster). **Also note Brooke and Cassandra won Best Poster Presentation at Discover SC.**

***This work was funded by a Magellan Scholar Award from USC-Columbia and a Magellan Mentor Award from USC Upstate.**

20. Tina Fadel and Kimberly R. Shorter. Does Vitamin B12 affect gene expression and vesicle movement in a human neuronal cell line? Upstate Research Symposium 2021 (poster). Note: Also presented at Discover SC 2021 (poster). **Also note Tina won Best Poster Presentation at the Upstate Research Symposium.**

***This work was funded by a Magellan Scholar Award from USC-Columbia.**

21. Gabriel Castillo, Nicole Yadon Rogers, and Kimberly R. Shorter. Does an MTHFR knockdown alongside a 2x folic acid treatment affect vesicle trafficking in SHSY5Y cells? Upstate Research Symposium 2019 (poster). Note: Also presented at Discover USC 2019 (poster).

***This work was funded by a Magellan Scholar Award from USC-Columbia and a Magellan Mentor Award from USC Upstate.**

22. Nicole Yadon Rogers and Kimberly R. Shorter. Effect of miR-718 on the PI3K/AKT/MTOR pathway and dendritic spine counts in SHSY5Y cells. Upstate Research Symposium 2019 (poster). Note: Also presented at Discover USC 2019 (poster). **Also note Nicole won Best Poster Presentation at the Upstate Research Symposium.**

***This work was funded by a Magellan Scholar Award from USC-Columbia and a Magellan Mentor Award from USC Upstate.**

23. Cesar Lopez and Kimberly R. Shorter. Does excess folic acid affect vesicle trafficking in a human neuronal cell line? Upstate Research Symposium 2019 (poster). Note: Also presented at Discover USC 2019 (poster).

- *This work was funded by a Magellan Scholar Award from USC-Columbia and a Magellan Mentor Award from USC Upstate.**
24. Whitnei Smith and Kimberly R. Shorter. An investigation of the effects of folic acid (2x) on miR-718 expression and the PTEN/PI3K/AKT/mTORC1 pathway. Upstate Research Symposium 2019 (oral presentation).
***This work was funded by a Research Assistantship from USC Upstate.**
25. Nuri Smith and Kimberly R. Shorter. Excess vitamin B12 and expression of MECP2, DNMT1, DNMT3A, DNMT3B. Upstate Research Symposium 2019 (oral presentation). **Note: Nuri won best oral presentation at the Upstate Research Symposium.**
***This work was funded by a Research Assistantship from USC Upstate.**
26. ***Rahaf Al Sayed, Whitnei Smith, and Kimberly R. Shorter.** An investigation of the effects of folic acid on histone modifications and dendritic spine density in a human neuronal cell line. South Carolina Academy of Sciences Meeting 2018 (poster). Note: Also presented at the Upstate Research Symposium 2018 (poster) and Discover USC 2018 (poster). Also note Rahaf won Best Poster Presentation at the South Carolina Academy of Sciences Meeting.
***This work was funded by a RISE award from USC-Columbia/USC Upstate, a Magellan Scholar Award from USC-Columbia and a Magellan Mentor Award from USC Upstate.**
27. ***Rachael Schmelz, Daniel Clark, and Kimberly R. Shorter.** Does high folic acid alongside a gene knockdown of MTHFR induce histone modifications and altered neurobiology in a human neuronal cell line? South Carolina Academy of Sciences Meeting 2018 (poster). Note: Also presented at the Upstate Research Symposium 2018 (poster) and Discover USC 2018 (poster). Also note Rachael won Best Poster Presentation at the Upstate Research Symposium and at Discover USC.
***This work was funded by a RISE award from USC-Columbia/USC Upstate, a Magellan Scholar Award from USC-Columbia, a Magellan Mentor Award from USC Upstate, and a Research Assistantship from USC Upstate.**
28. ***Daniel Clark and Kimberly R. Shorter.** Does a 10x folic acid dose affect gene expression of chromatin modifying enzymes in human neurons with a gene knockdown of MTHFR? South Carolina Academy of Sciences 2018 (poster). Note: Also presented at the Upstate Research Symposium 2018 (poster). Also note Daniel won Best Poster Presentation at the Upstate Research Symposium.
***This work was funded by a RISE award from USC-Columbia/USC Upstate and a Research Assistantship from USC Upstate.**
29. Angela Bustamante and **Kimberly R. Shorter.** Could excess folic acid exposure affect metabolism and contribute to obesity? Upstate Research Symposium 2018 (poster).
***This work was funded by the Scholarly Startup Grant from USC Upstate.**
30. Nicole Yadon and **Kimberly R. Shorter.** Excess folic acid and sex hormones: could excess folic acid affect fertility? Upstate Research Symposium 2018 (poster).
***This work was funded by the Scholarly Startup Grant from USC Upstate.**
31. **Kimberly R. Shorter, P. Glenton, and B.H. Miller.** Molecular interactions between two schizophrenia-associated miRNAs. Neuroepigenetics Keystone Symposium 2015 (poster).
32. **Kimberly R. Shorter, P. Glenton, and B.H. Miller.** In vivo analysis of the effects of miR-132 on epigenetic factors associated with major psychiatric disorders. Neuroepigenetics Keystone Symposium 2015 (poster).
33. **Kimberly R. Shorter, S. Johnson, M.R. Felder, C. Rosenfeld, and P.B. Vrana.** Genetic Background Influences Effects of a Methyl-Donor Diet in *Peromyscus* (deer mice). Keystone Symposium Epigenetic Programming and Inheritance 2014 (poster).
34. **Kimberly R. Shorter, M.R. Felder, and P.B. Vrana.** Natural Genetic Variation Underlying Differences in *Peromyscus* Repetitive and Social/Aggressive Behaviors. University of South Carolina Molecular, Cell, and Developmental Biology Retreat 2013 (oral presentation, invited speaker).
35. **Kimberly R. Shorter, J. Crossland, K. Lo, D. Webb, M. R. Felder, and P.B. Vrana.** Epigenetic Effects on a Natural Mammalian Variant. Society of Integrative and Comparative Biology (SICB) 2012 (poster).

Grant Funding History, Awards, and Honors

2024	
	NIH-NIGMS R16 Sure First Award for 3 years: \$375,000 direct costs + 147,500 indirect costs (\$517,500)
	Research with Medical School in Greenville on NIH R25- funding for 2 student salaries and \$4000 supplies for Summer (~\$12,000)

	SC INBRE funding for 4 students (Megan Reilly, Daffney Alles, Sandra Williams, and Amara Bolt), supplies, and faculty salary (~\$32,000)
	Excellence in Teaching and Advising Award Nominations (x4), USC Upstate
	Glasswing Butterfly Award for Service from Chancellor Bennie Harris
	Excellence in Service Award from USC Upstate
	Research Assistantship, USC Upstate (\$1,500)
	Magellan Mentor, USC Upstate (\$3,000)
	Research with Medical School in Greenville on NIH R25- funding for 2 student salaries and \$1000 supplies for Spring 2024 (~\$4,200)
	Magellan Scholarship (to USC Upstate Student), USC System (\$2,500)
2023	
	Research with Medical School in Greenville on NIH R25- funding for 2 student salaries and \$1000 supplies for Fall 2023 (~\$4,200)
	Research with Medical School in Greenville on NIH R25- funding for 2 student salaries and \$2000 supplies for summer 2023 (~\$10,000)
	Research Assistantship, USC Upstate (\$1,500)
	Magellan Mentor, USC Upstate (\$3,000)
	Magellan Scholarship (to USC Upstate Student), USC System (\$2,500)
	Excellence in Teaching and Advising Award Nomination, USC Upstate
	Magellan Mentor, USC Upstate (\$3,000)
	Magellan Mentor, USC Upstate (\$3,000)
	Magellan Scholarship (to USC Upstate Student), USC System (3,000)
	Magellan Scholarship (to USC Upstate student), USC System (\$3,000)
2022	
	SC INBRE funding for 4 students awarded in 2022, funding is for Summer 2023 (~\$32,000)
	Research Assistantship, USC Upstate (\$1,500)
	Course Release awarded through INBRE ER(Up)T for Spring 2023
	Magellan Mentor, USC Upstate (\$3,000)
	Magellan Scholarship (to USC Upstate student), USC System (\$3,000)
	University of South Carolina Upstate Excellence in Teaching and Advising Award
	College of Science and Technology Excellence in Teaching and Advising Award
	Research with Medical School in Greenville on NIH R25- funding for 2 student salaries and \$2000 supplies for summer 2022 (~\$10,000)
	SC INBRE funding for 3 students awarded in 2021, funding is for Summer 2022 (~\$30,000)
2021	
	Magellan Mentor, USC Upstate (\$3,000)
	Magellan Mentor, USC Upstate (\$3,000)
	Magellan Scholarship (to USC Upstate student), USC System (\$3,000)
	Magellan Scholarship (to USC Upstate student), USC System (\$3,000)
	SC INBRE funding for 2 students, supplies, and faculty salary for Summer 2021 (~\$25,000)
	TAPS Grant, USC Upstate (\$1,650)
2020	
	Co-PI on Noyce Bridging Pathways to Prepare Highly Qualified Mathematics and Science Teachers Grant (PI: Stephen Bismarck), National Science Foundation (\$1,200,000)

	Co-PI on INBRE ER(Up)T Summer Research Grant (PI: Joshua Ruppel), National Institutes of Health (\$693,000)
	ASPIRE I Award, USC System (\$15,000)
	Magellan Mentor, USC Upstate (\$3,000)
	Magellan Scholarship (to 2 USC Upstate students), USC System (\$5,000)
	Student Travel Grant, USC Upstate (\$800)
	Excellence in Teaching and Advising Nomination, USC Upstate
	TAPS Grant, USC Upstate (\$650)
2019	
	TAPS Grant, USC Upstate (\$1,600)
	Recognized as having a "major impact" on graduating Biology major, USC Upstate
	Recognized as "favorite teacher" by a student athlete, USC Upstate
	Magellan Scholarship (to USC Upstate Student), USC System (\$2,500)
2018	
	Magellan Mentor, USC Upstate (\$3,000)
	Magellan Scholarship (to USC Upstate Student), USC System (\$2,500)
	Research Assistantship, USC Upstate (\$1,500)
	Research Assistantship, USC Upstate (\$1,500)
	Magellan Mentor, USC Upstate (\$3,000)
	Magellan Mentor, USC Upstate (\$3,000)
	Magellan Scholarship (to USC Upstate Student), USC System (\$2,750)
	Magellan Scholarship (to USC Upstate Student), USC System (\$2,750)
2017	
	Magellan Mentor, USC Upstate (\$3,000)
	Magellan Scholarship (to USC Upstate Student), USC System (\$2,500)
	Research Assistantship, USC Upstate (\$1,500)
	AGOGE Freshman Advocate, USC Upstate
	Excellence in Teaching and Advising Nomination, USC Upstate
	Scholarly Startup Package, USC Upstate (\$5,000)
	Magellan Mentor, USC Upstate (\$3,000)
	Magellan Scholarship (to USC Upstate Student), USC System (\$3,000)
	Research Initiative for Summer Engagement (RISE), USC System (\$6,000)
2016	
	Research Initiative for Summer Engagement (RISE), USC System (\$6,000)
2015	
	Magellan Scholarship shared with B. Baumgarner (to USC Upstate Student), USC System (\$3,000)
2014	
	Preparing Future Faculty Certificate for Graduate Students, USC System
	Kathryn Hinnant Johnson Award for Genetics Research for Graduate Students, USC System
2013	
	Jeffrey Barnesdale Graduate Student Teaching Award, USC System

	SPARC Grant for Graduate Student Research, USC System (\$6,000)
2008	
	Best Poster Presentation Award at the South Carolina Environmental Conference, Converse College
	Best Oral Presentation Award at the 4th Annual USC Upstate Research Symposium, Converse College
2007	
	South Carolina Independent Colleges and Universities Undergraduate Research Grant, Converse College (\$3,000)

Affiliations

1. South Carolina Academy of Sciences (2017-current)
2. Society for Neuroscience (2015-current)
3. Tri-Beta Biological Honors Society (2008-current)
4. Association of Southeastern Biologists (2007-current)
5. National Postdoctoral Association (2014-2015)
6. American Chemical Society Student Member (2006-2009)
7. Science Forum at Converse College (2005-2009)

Summary of Courses Taught

2015-Present

University of South Carolina Upstate

BIOL U101	Introductory Biology I
BIOL U101L	Introductory Biology I Lab
BIOL U302	Introductory Cell and Molecular Biology
BIOL U302L	Introductory Cell and Molecular Biology Lab
BIOL U399	Undergraduate Research
BIOL U530	Histology
BIOL U530L	Histology Lab
BIOL U535	Neurobiology
BIOL U599	Biology Senior Seminar

2009-2014

University of South Carolina

CHEM 102L	Fundamental Chemistry II Lab and Recitation
BIOL 102L	Introductory Biology II Lab
BIOL 530L	Histology Lab
BIOL 541L	Biochemistry Lab
BIOL 712	Gene Expression and Regulation- Guest Lecture

Summary of Service Activity

University Service

- Pre-Health Professionals Coordinator for USC Upstate (2021-current)
- Member, USC School of Medicine Greenville Steering Committee (2021-current)
- P3 (Premed Partners Pathway) Mentor with USC School of Medicine Greenville (2021-current)
- Faculty Recording Secretary (2022-2024)

- Member, Faculty Welfare (2021-2024)
- Tri-Beta (Beta Beta Beta) Biological Honors Society Faculty Advisor (2019-current)
- Member, Peer Review Committee, NSE (USC Upstate) (2022-2023)
- External Member, Peer Review Committee, Library (USC Upstate) (2022-2023)
- Member, Post Tenure Review Committee (2021-2022)
- Member, Director of Interdisciplinary Studies Search Committee (2020)
- Chair; Committee for Faculty Excellence (2018-2020)
- Unit Representative; Committee for Faculty Excellence (2017-2020)
- Member, Faculty Advisory Committee (2018-2019)
- Member, Faculty Senate (2016-2019)
- Member, Honor Council Pool (2016-2018)

Unit Service

- BIOL101/102/301/302 Committee (2019-current)
- Biology Assessment Coordinator (2018-current)
- Member, Peer Review Committee NSE (2022-2023)
- Member, Post-Tenure Review Criteria Design Committee for NSE (2021)
- BIOL101/102 Committee for Faculty Searches (2019)
- Member, ETM Search Committee (2016-2017)

Community Service

- Church lead pianist (2015-current)
- PURR Paws Up Cat Rescue Group (2017-2022)
- Invited Speaker to Discuss Graduate School (Converse College) (2018)
- USC Aiken Invited Speaker to Senior Seminar (2017)
- INBRE Presentation at Converse College (2016)
- Tri-Beta Presentation at Converse College (2015)

Professional Service

- SC Upstate Symposium Co Chair (2021-current)
 - Judged 6 Biology-Ecology posters at the SC Upstate Symposium (2024)
 - Requesting participation from program committee members for 2024 symposium while research director is on sabbatical (2023-2024)
 - Requesting participation from career fair participants and potential partners, working with career services at Upstate to organize career fair in the research director's absence (2023-2024)
 - Assisted with organizing the event overall (2022, 2023, 2024)
 - In charge of organizing student workers for the event (2022, 2023, 2024)
 - Session chair for two Biology breakout sessions in the afternoon (2022) and one each year in 2023, 2024
 - Reviewed abstracts (23 abstracts in Spring 2022, 10 abstracts in Spring 2023, 52 in Spring 2024) for quality
 - Oral Presentation judge for a Biology breakout session while chairing (2023)
 - Was in charge of presenting student awards at the end of the day (2022, 2023, 2024)
- Reviewed 7 Magellan Grant Proposals (2022)
- Poster Judge for SC Upstate Symposium (Medical School Posters) (2021)
- Reviewed 7 Aspire I Grant Proposals (2021)
- Regional Sci. Fair Judge- High School Biology (also served as Captain) (2020)
- Reviewed 8 Magellan Grant Proposals (2020)
- Reviewed 3 RISE Grant Proposals (2020)
- Manuscript Reviewer for FASEB Journal (2019)

- Session Chair for Upstate Symposium (2019)
- Reviewed 8 Magellan Grant Proposals (2019)
- Poster Judge for Upstate Symposium (Nursing School posters) (2019)
- Regional Science Fair Judge- High School Biology (2019)
- Poster Judge for Upstate Symposium (Biology posters) (2017)
- Reviewed 2 Manuscripts for USC Upstate Research Journal (2017)
- Session Chair for Upstate Symposium (2016)

Additional Training/Seminar Attendances

2024

- CircleIn Training for teaching BIOL101 (5/6/24, 2 hours)
- NIH R16 Bootcamp (Virtual by UKY, 2 days for a total of 8 hours)
- Title IX training
- OSHA annual training
- Virtual BSL-2 training through USC-Columbia

2023

- Propel NIH Grant Writing Workshops (USC-Columbia, in-person, once a month meetings 9am-1pm Fridays for 9 months in the 2023-2024 academic year. Additionally, I met with a mentor virtually 3 times in Spring 2024)
- Title IX training
- OSHA annual training

2022

- NIH virtual grant-writing seminars (2 meetings, USC-Columbia-sponsored)
- Blackboard Day- How to use Yuja by CAIFS (USC Upstate)
- Title IX online training
- OSHA annual training

2021

- Title IX online training modules (USC Upstate)
- Lessons from the Pandemic by CAIFS (USC Upstate)
- Training with Josh Ruppel on Pre-Health Professionals Coordinator Position (2x 1.5 hour meetings) (USC Upstate)
- OSHA annual training

2020

USC Upstate Online Teaching Prep (1 month course)
 Course Redesign: Backwards Design Workshop (USC Upstate)
 How to Hold a Meeting Workshop (USC Upstate)
 Effective Advising Workshop (USC Upstate)
 OSHA annual training

2019

Mental Health First Aid Training (USC Upstate)
 Active Shooter Training (USC Upstate)
 Faculty Teaching Workshop given by Dr. Sandra McGuire (USC Upstate)
 Civil Treatment of Employees Training (USC Upstate)
 OSHA annual training

2018

Diversity: Inclusion in the Workplace Training (USC Upstate)
 Harassment & Discrimination Prevention Training (USC Upstate)
 Mentoring Students Workshop (USC Upstate- SARS Office)

Active Learning Training (USC Upstate)
Scope of Scholarship Workshop (USC Upstate-SARS Office)
OSHA annual training

2017

Center for Excellence in Teaching Course Design Series at USC Upstate (3 total seminars)
OSHA annual training

2016

Friday Lunch and Learn Series of Workshops from the Grants Management Office at USC Upstate- I attended the full series in 2016.

OSHA annual training

2015

Friday Lunch and Learn Series of Workshops from the Grants Management Office at USC Upstate- I attended the full series in 2015.