

CV: Laura K. Reed

Curriculum Vitae
Laura K. Reed, PhD

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Research Interests

I study the origin and maintenance of natural phenotypic variation for complex traits in the context of evolutionary genetics and quantitative genomics. Presently, my primary research focuses on the genotype-by-environment interactions that underlie complex metabolic traits using the genus *Drosophila* as a model system. I am using a systems biology framework to integrate metabolomic and genetic data to characterize the genetic and physiological architecture and evolution of metabolic phenotypes.

Present Position

Associate Professor, Department of Biological Sciences, University of Alabama, 8/17- present
Director, Genomics Education Partnership, 8/17-present

Education

Postdoctoral Training, Genetics, North Carolina State University, 2006-2010 (G. Gibson, supervisor)
Doctor of Philosophy, Ecology and Evolutionary Biology, University of Arizona, 2006
Dissertation Title: The genetic relationship of the sister species *Drosophila mojavensis* and *Drosophila arizonae* and the genetic basis of sterility in their hybrid males. (T. Markow, supervisor)
Bachelor of Science, Biology, Honors with Distinction Clark Honors College, Univ. Oregon, 2000
(W.E. Bradshaw and C.M. Holzapfel, supervisors)

Scientific Employment/Fellowship History

Associate Professor, University of Alabama, 8/17- present
Assistant Professor, University of Alabama, 8/10-7/17
Postdoctoral Fellow, Georgia Institute of Technology, 7/10-8/10
Postdoctoral Fellow, Dept. of Genetics, North Carolina State University, 7/07-6/10
Postdoctoral Research Associate, Dept. of Genetics, North Carolina State University, 7/06 – 6/07
IGERT Genomics Fellow, University of Arizona, 6/05-5/06
Graduate Teaching Assist, Dept. of Ecology and Evolutionary Biology, University of Arizona, 8/04-5/05
IGERT Genomics Fellow, University of Arizona, 8/03-7/04
Plant-Insect Interaction Fellow, University of Arizona, 1/01 – 7/03
Graduate Teaching Assist, Dept. of Ecology and Evolutionary Biology, University of Arizona, 8/00-12/00
Undergraduate Teaching Assistant, Department of Biology, University of Oregon, 1/99-6/00

Awards and Honors

Blackmon-Moody Outstanding Professor, University of Alabama 2021
Distinguished Teaching Fellow, College of Arts and Sciences, University of Alabama 2021-2024
Blackmon-Moody Outstanding Professor Award- Finalist, University of Alabama 2020
President's Faculty Research Award: Mid-career, University of Alabama 2020
Idea Competition for Symposium on Imagining the Future of Undergraduate STEM Education- Finalist, National Academies of Sciences, Engineering, and Medicine, 2020

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Sigma Xi Scientific Research Honor Society, 2019-present
Faculty Fellow in Service Learning, University of Alabama, 2016-2017
Diabetes Activist Pinning by DiET, World Diabetes Day, Univ. Alabama, 2015
Rural Health Heroes Award, Institute of Rural Health Research, Univ. Alabama, 2015
Excellence in Academic Advising, Office of Academic Affairs, Univ. Alabama, 2015
Center for Community-Based Partnerships, Seed Fund Recipient, Univ. Alabama 2015
Spotlight Genome and Systems Biology Article, Genetics Journal, 2014
Research Stimulation Program - Postdoc Award to Reed Lab, Univ. Alabama Office of Research, 2014
Postdoctoral Fellow Kirschstein National Research Service Award, (NIH, G. Gibson, mentor), 2007
Graduate Fellow- Evol. Funct. & Comp. Genomics IGERT, University of Arizona, 2003 and 2005
Summer Institute in Statistical Genetics Scholarship, NCSU, 2002, 2004, and 2006.
American Association of University Women Dissertation Fellowship, 2005
Bessey Astrobiology Scholarship, 2005
Graduate Student Leadership Award, University of Arizona, 2005
Keystone Symposium Scholarship, Quant. Gen. and Natural Variation in Model Organisms, 2004
Graduate Fellow-Plant Insect Interaction Grant, University of Arizona, 2001-2003
Honorable Mention, National Science Foundation Predoctoral Research Fellowship Competition, 2001
Phi Beta Kappa National Honor Society, 2000
Presidential Scholar, University of Oregon, 1996-2000

Scientific Groups and Panels

CUREnet CURE Sustainability meeting invited participant, Carleton College, Northfield, MN Oct. 2019
Southeastern FlyBoard Representative, Spring 2018-present
Genomics Education Partnership, Director and PI, Fall 2017-present
Genomics Education Alliance, Steering Committee, Summer 2017-present
Genome Education Partnership, Sarah Elgin PI, member, Summer 2011-Summer 2017
Summer Symposium on Molecular Biology "Metabolism: Disease models and model organisms" invited speaker, Penn State, Spring 2017
Drosophila Research Ecosystem Meeting invited participant, Spring 2016
Model Organism Metabolomics Task Group invited member, International Metabolomics Society, Spring 2015 - 2018
International *Drosophila* Metabolomics Curation Consortium, Founder, Spring 2013 – Fall 2018
Landscape Genomics, NIMBios invited working group member, 2014-2016
Landscape Genomics, NESCent Catalysis meeting invited participant, Spring 2013

Research Conference Organization

Model Organism Metabolomics Workshop, Organizer, The Allied Genetics Conference 2016, Orlando, FL, July 2016
Drosophila Metabolomics Workshop, co-organizer, 55th Annual *Drosophila* Research Conference, San Diego, CA March 2014
Inaugural meeting of the International *Drosophila* Metabolomics Curation Consortium, Meeting Organizer, Univ. of Alabama, October 2013

Research and Science Education Support

Genetics Society of America, GEP-Translate Initiative, 3/1/2021-2/28/2022, (\$2000)
Center for Clinical and Translational Science- University of Alabama Birmingham, Research Voucher, 2019, (\$5000)
NSF IUSE Sustaining and Growing a Dispersed Community of Practice that Engages Undergraduates in

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- Course-Based Genomics Research 10/01/2019-09/30/2024 (PI, co-PI Chalker- WUSTL, Reinke – Linfield, Goodman – Cal Poly-San Luis Obispo), (\$1,999,426) DUE 1915544
- NIH IPERT Expanding the Genomics Education Partnership: Regional Mentoring and Training Networks to Diversify Bioinformatics Education and Research 04/15/2019-03/31/2024 (PI, co-PI Chalker- WUSTL), (\$2,212,467) NIGMS R25GM130517
- NSF Dimensions: Collaborative Research: Integrating phylogenetic, genetic, and functional approaches to dissect the role of toxin tolerance in shaping *Drosophila* biodiversity 9/1/17-8/30/22 (PI, Scott-Chialvo-UA, Werner-MTU, Dyer-UGA Co-PIs), (\$968,438 to UA, \$1,999,909 total) DEB 1737869
- South East Center for Integrative Metabolomics Pilot and Feasibility Award, Characterizing the metabolism of a deadly mushroom toxin in *Drosophila* 07/01/15-06/30/16 (PI, Scott-UA and Werner-MTU Co-PIs), (\$17,500)
- University of Alabama-RSP 08/16/14-08/15/16 Developing Metabolomic Resources for *Drosophila*: A Postdoctoral Fellow Proposal (PI) (\$102,906)
- Center for Community Based Partner Research, Exploring Modern Biology and the Scientific Process, 2015, (PI, Co-PI Kevin Besnoy) (\$2010)
- University of Alabama System Collaborative Grant, Dynamics of gut microbiome in physiology and evolutionary ecology in the model system *Drosophila* (PI, Patty Sobecky -UA, Luciano Matzkin-UAH, Casey Morrow -UAB Co-PI), 02/01/15-01/31/15 (\$7500, UA portion \$2500)
- R01GM098856- Genetic Basis of Genotype-by-Environment Interactions Underlying Physiological Modules of Metabolic Syndrome-like Symptoms in *Drosophila* 07/01/11-03/31/16 (PI, Alison Motsinger-NCSU Co-PI), (\$1,295,342)
- Ruth L. Kirschstein National Research Service Awards (NIH-NRSA), 2007-2010 (\$144,900)
- Doctoral Dissertation Improvement Grant, National Science Foundation (DEB 0414184), 2004-2006 (\$10,290)
- Small Graduate Research Grant, Center for Insect Science, University of Arizona, 2003 (\$2000)

Research Products

Publications

(* indicates undergraduate co-authors, article links can be found at flygxe.ua.edu/publications.html)

Books

1. *Evolution Education in the American South: Culture, Politics, and Resources in and around Alabama*, C.D. Lynn, A. Glaze, **L.K. Reed** & W. Evans (eds.) Palgrave Macmillan, 2016

MicroPublications (Peer Reviewed)

2. B. Lose*, A. Myers*, S. Fondse*, I. Alberts*, J. Stamm, J.J. Youngblom, C.P. Rele and L.K. Reed, 2021 “*Drosophila yakuba* – *Tsc1*” micropublication Biology. 10.17912/micropub.biology.000474.
1. C.P. Rele, J. Williams*, **L.K. Reed**, J.J. Youngblom & W. Leung, 2021 “*Drosophila grimshawi* - *Rheb*”, *microPublication: Biology*, 10.17912/micropub.biology.000371.

Peer Reviewed Articles and Book Chapters

39. A. Bombin, O. Cunneely*, K. Eickman*, S. Bombin, A. Ruesy*, M. Su*, A. Myers*, R. Cowan*, and

- L.K. Reed**, 2020, "Influence of Lab Adapted Natural Diet and Microbiota on Life History and Metabolic Phenotype of *Drosophila melanogaster*", *Microorganisms* 8(12), 1972; <https://doi.org/10.3390/microorganisms8121972>
38. L. Griffin and L.K. Reed, 2020 "Effect of gut microbiota on α -amanitin tolerance in *Drosophila tripunctata*", *Ecology and Evolution*, 10, 9419-9427 doi.org/10.1002/ece3.6630
37. C. Scott Chialvo, L. Griffin, **L.K. Reed**, L. Ciesla, 2020, "Exhaustive extraction of cyclopeptides from *Amanita phalloides*: guidelines for working with complex mixtures of secondary metabolites", *Ecology and Evolution*, 10, 4233-4240 doi.org/10.1002/ece3.6191
36. D. Lopatto, R.G. Rosenwald...**L.K. Reed**, S.C.R. Elgin, 2020 "Facilitating Growth through Frustration: Using Genomics Research in a Course-based Undergraduate Research Experience" *Journal of Microbiology & Biology Education*, 21:1 doi:10.1128/jmbe.v21i1.2005
35. C.H. Scott Chialvo, B.E. White, **L.K. Reed**, K.A. Dyer, 2019 "A phylogenetic examination of host use evolution in the *quinaria* and *testacea* groups of *Drosophila*", *Molecular Phylogenetics and Evolution*, 130, 233-243 doi:10.1016/j.ympev.2018.10.027
34. V. Oza, J. Aicher, and **L.K. Reed**, 2018 "Random forest analysis of untargeted metabolomics elucidates the role of diet and triglyceride storage in *Drosophila melanogaster* larvae", *Metabolomics*, 9(1), 5, doi.org/10.3390/metabo9010005
33. K. Lowman, B. Wyatt*, O. Cunneely*, **L.K. Reed**, 2018, "The TreadWheel: Interval Training Protocol for Gently Induced Exercise in *Drosophila melanogaster*", *J. Vis. Exp.* (136), e57788, doi:10.3791/57788
32. R. Salek, P. Conesa, K. Cochrane, K. Haug, M. Williams, N. Kale, P. Moreno, K. Jayaseelan, J. Ramon Macias, V. Chandrasekhar, R.D. Hall, **L.K. Reed**, M.R. Viant, C. O'Donovan, C. Steinbeck, 2017, "Automated Assembly of Species Metabolomes through Data Submission into a Public Repository" *GigaScience* 6(8):1-4. doi.org/10.1093/gigascience/gix062
31. W. Leung...**L.K. Reed**... SCR Elgin. 2017, "Retrotransposons are the major contributors to the expansion of the *Drosophila ananassae* Muller F element.". (This paper from the Genomics Education Partnership has 272 co-authors; 237 of them participated as students.) *G3: GENES, GENOMES, GENETICS* 7(8):2439-2460. <https://doi.org/10.1534/g3.117.040907>
30. D. Lowry, S. Hoban, J. Kelley, K. Lotterhos, **L.K. Reed**, M. Antolin, A. Stofer, 2017, "Responsible RAD: Striving for best practices in population genomic studies of adaptation" *Molecular Ecology Resources*, 17:366–369. doi.org/10.1111/1755-0998.12677
29. **L.K. Reed**, C.F. Baer, A.S. Edison, 2017, "Considerations when choosing a genetic model organism for metabolomics studies" *Current Opinion in Chemical Biology* 36:7–14
28. S.C.R. Elgin, C. Hauser, T.M. Holzen, C. Jones, A. Kleinschmit, J. Leatherman, Genomics Education Partnership (**L.K. Reed** co-author), 2017, "The GEP: Crowd-Sourcing Big Data Analysis with Undergraduates" *Trends in Genetics*, 33:81-85.

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27. D.B. Lowry, S. Hoban, J.L. Kelley, K.E. Lotterhos, **L.K. Reed**, M.F. Antolin, A. Storfer, 2017, "Breaking RAD: The utility of restriction site associated DNA sequencing for genome scans of adaptation" *Molecular Ecology Resources* 17(2):142-152
26. S. Mendez*, L. Watanabe, R. Hill*, M. Owens*, J. Moraczewski, G.C. Rowe, N. Riddle, and **L.K. Reed**, 2016, "The TreadWheel: A Novel Apparatus to Measure Genetic Variation in Response to Gently Induced Exercise for *Drosophila*." *PLoS ONE* 11(10): e0164706.
25. **L.K. Reed**, 2016 "Resources for Teaching Biological Evolution in the Deep South." In: C. Lynn, A. Glaze, L.K. Reed & W. Evans (eds.) *Evolution Education in the American South: Culture, Politics, and Resources in and around Alabama*. Palgrave Macmillan
24. C. Scott Chialvo, R. Che, D. Reif, A. Motsinger-Reif, and **L.K. Reed**, 2016 "Using eigenvector metabolite analysis to assess dietary effects on the association among metabolite correlation patterns, gene expression, and phenotypes" *Metabolomics* 12(167), doi: 10.1007/s11306-016-1117-3
23. A. Bombin and **L.K. Reed**, 2016 "The changing biodiversity of Alabama *Drosophila*: important impacts of seasonal variation, urbanization, and invasive species." *Ecology and Evolution* 12;6(19):7057-7069
22. K. Dew-Budd, J. Jarnigan, and **L.K. Reed**, 2016 "Genetic and sex-specific transgenerational effects of a high fat diet in *Drosophila melanogaster*" *PLoS ONE* 11(8): e0160857
21. S. Hoban, J. Kelley, K. Lotterhos, M. Antolin, G. Bradburd, D. Lowry, M. Poss, **L.K. Reed**, A. Storfer, and M. Whitlock, 2016 "Finding the genomic basis of local adaptation in non-model organisms: pitfalls, practical solutions and future directions" *Am. Nat.* Vol. 188, pp. 379–397, DOI: 10.1086/688018
20. A.S. Edison, R.D. Hall, C. Junot, P.D. Karp, I.J. Kurland, R. Mistrik, **L.K. Reed**, K. Saito, R.M. Salek, C. Steinbeck, L.W. Sumner, M.R. Viant, 2016 "The time is right to focus on model organism metabolomes" *Metabolites* 6,8; doi:10.3390/metabo6010008
19. S. Williams*, K. Dew-Budd*, K. Davis*, J. Anderson, R. Bishop*, K. Freeman*, D. Davis*, K. Bray*, L. Perkins*, J. Hubickey*, **L.K. Reed** 2015 "Metabolomic and gene expression profiles exhibit modular genetic and dietary structure linking metabolic syndrome phenotypes in *Drosophila*" *G3: GENES, GENOMES, GENETICS* 5:2817-2829
18. W. Leung, C.D. Shaffer, **L.K. Reed**, [940 student co-authors (four from UA)*, 74 faculty co-authors], S.C.R. Elgin, 2015 "The *Drosophila* Muller F elements maintain a distinct set of genomic properties over 40 million years of evolution." *G3: GENES, GENOMES, GENETICS* 5:719-740
17. D. Lopatto, *et al.* (**L.K. Reed** co-author), 2014 "A Central Support System Can Facilitate Implementation and Sustainability of a Classroom-Based Undergraduate Research Experience (CURE) in Genomics" *CBE-Life Sciences* 13:711-723
16. **L.K. Reed**, K. Lee, Z. Zang, L. Rashid, A. Poe*, B. Hsieh, N. Deighton, N. Glassbrook, R. Bodmer,

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- G. Gibson, 2014 "Systems genomics of metabolic phenotypes in wild-type *Drosophila melanogaster*" *Genetics*, DOI: 10.1534/genetics.114.163857 - **2014 Spotlight Article**
15. C. Shaffer, *et al.* (**L.K.Reed** co-author), 2014, A Course-Based Research Experience: How Benefits Change with Increased Investment in Instructional Time. *CBE- Life Sciences* 13(1):111-130
 14. M. Polihronakis Richmond, S. Johnson, T.S. Haselkorn, M. Lam, **L.K. Reed**, T.A. Markow, 2013 "Genetic isolation of island populations: geographic barrier or a host switch?" *Biological Journal of the Linnean Society*, 108: 68-78
 13. **L.K. Reed**, S. Williams*, M. Springston*, J. Brown, K. Freeman*, C.E. DesRoches, M.B. Sokolowski, G. Gibson, 2010 "Genotype-by-Diet Interactions Drive Metabolic Phenotype Variation in *Drosophila melanogaster*" *Genetics* 185: 1009–1019
 12. E. Pfeiler, S. Castrezana, and **L.K. Reed**, 2009 "Genetic, ecological and morphological differences among populations of the cactophilic *Drosophila mojavensis* from southwestern USA and northwestern Mexico, with descriptions of two new subspecies" *Journal of Natural History* 43:15 923- 938.
 11. G.Gibson and **L.K. Reed**, 2008 "Cryptic genetic variation" *Current Biology* 18(21): R989-R990
 10. **L.K. Reed**, B.A. LaFlamme*, T.A. Markow, 2008 "Genetic Architecture of Hybrid Male Sterility in *Drosophila*: Analysis of Intraspecies Variation for Interspecies Isolation." *PLoS ONE* 3(8): e3076 doi:10.1371/journal.pone.0003076
 9. S. W. Schaeffer, *et al.* (**L.K. Reed** coauthor), 2008 "Polytene Chromosomal Maps of 11 *Drosophila* Species: The Order of Genomic Scaffolds Inferred From Genetic and Physical Maps." *Genetics* 179: 1601–1655.
 8. *Drosophila* 12 Genomes Consortium (**L.K. Reed** coauthor), 2007 "Evolution of genes and genomes in the *Drosophila* phylogeny" *Nature* 450: 203-218.
 7. C.A. Machado, L.M. Matzkin, **L.K. Reed**, & T.A. Markow. 2007, "Multilocus nuclear sequences reveal intra and interspecific relationships among chromosomally polymorphic species of cactophilic *Drosophila*." *Molecular Ecology*, 16:3009–3024.
 6. **L.K. Reed**, M.E. Nyboer*, & T.A. Markow, 2007 "Evolutionary relationships of *Drosophila mojavensis* geographic host races and their sister species *Drosophila arizonae*." *Molecular Ecology*, 16: 1007–1022.
 5. T.A. Markow, **Reed, L.K.** and Kelleher, E.S. 2006. "Sperm fate and function in reproductive isolation in *Drosophila*." *In*: Roldan, E.S, and Gomiendo, M. Eds. Spermatology. Nottingham University Press, Nottingham.
 4. D. Mathias, **L.K. Reed**, W.E. Bradshaw & C.M. Holzapfel, 2006 "Evolutionary divergence of circadian and photoperiodic phenotypes in the pitcher-plant mosquito, *Wyeomyia smithii*." *Journal of Biological Rhythms*, 21:132-139.

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3. E. Pfeiler, **L.K. Reed**, & T.A. Markow, 2005 "Inhibition of alcohol dehydrogenase after 2-propanol exposure in different geographic races of *Drosophila mojavensis*: Lack of evidence for selection at the Adh-2 locus" *Journal of Experimental Zoology*, 304:159-168
2. **L.K. Reed** & T.A. Markow, 2004 "Early Events in Speciation: Polymorphism for hybrid male sterility in *Drosophila*" *PNAS*, 101: 9009-9012
1. J. Jaenike, K.A. Dyer, & **L.K. Reed**, 2003 "Within-population structure of competition and the dynamics of male killing *Wolbachia*" *Evolutionary Ecology Research*, 5 (7): 1023-1036

White Papers and Pre-Prints

4. C.P. Rele, K.M. Sandlin, W. Leung, **L.K. Reed**, 2020 "Manual Annotation of Genes within *Drosophila* Species: the Genomics Education Partnership protocol" *bioRxiv*
doi.org/10.1101/2020.12.10.420521
3. S.C.R. Elgin, **L.K. Reed**, S. Donovan, 2020 "Teach science by engaging students in doing science: Fully realizing the current opportunities" *Idea Competition for Symposium on Imagining the Future of Undergraduate STEM Education*, www.nationalacademies.org/our-work/idea-competition-for-symposium-on-imagining-the-future-of-undergraduate-stem-education
2. **L.K. Reed**, R. Abler, 2020, "CURE Sustainability: Develop Distributed Leadership", *CUREnet*,
<https://serc.carleton.edu/curenet/leadership.html>
1. S.C.R. Elgin, G. Banger, V.P. Buonaccorsi, D.L. Chalker, E.D. Dinsdale, E.L. Dolan, L. Fletcher, A. Hunt, C.J. Lawrence-Dill, W. Leung, **L.K. Reed**, A.G. Rosenwald, S. Subramanya, E. Wiley, J. Williams, 2017, "A Genomics Education Alliance," *figshare*. Preprint.
<https://doi.org/10.6084/m9.figshare.5197228.v1>

(Inter)national Conference Oral Presentations (* indicates undergraduate co-authors, # presenting author)

29. Haynes, L. *, O. Fish*, J. Beveridge*, E. Bingolo, K. Durkan*, S-A. Giambrone*, G. Kropelin*, S. Rudisill*, P. Chialvo, **L.K. Reed**, and C.H. Scott Chialvo#. A spectrum of evolutionary novelty in mushroom-feeding *Drosophila*. Annual Meeting of the Society for the Study of Evolution, Virtual, June 2021.
28. **L.K. Reed**# "Gene-by-environment interaction architecture of exercise response in *Drosophila*." Invited Talk: Cells Webinar-Molecular Mechanisms of Exercise and Healthspan, May 2021
27. A. Goodman, R. Glaser, **L.K. Reed**, K. Sandlin, M. Santisteban, A. Sawa, "Democratizing Genomics Research Experiences in a Pandemic" 2021 STEM for All Video Showcase, virtual, May 2021
26. V. Mingo#, J.R. DiAngelo, R. Diotti, S.C.R. Elgin, J.T.F. Gillard, C.J. Jones, J. Kennell, J. Leatherman, D. Lopatto, W. Leung, H. Mistry, A. Nagengast, T. Sadikot, N. Velazquez-Ulloa, **L.K. Reed**, "The Genomics Education Partnership", 62th Annual *Drosophila* Conference, virtual, March 2021
25. Giambrone, S-A*, J. Beveridge*, L. Haynes*, O. Fish*, B. Lose*, **L.K. Reed**, and C.H. Scott Chialvo#. The contribution of the gut microbiome to toxin tolerance in mushroom-feeding *Drosophila*. Annual Meeting of the Society of Integrative and Comparative Biology, Virtual, January-February 2021
24. **L.K. Reed**#, "The Genomics Education Partnership: Expanding opportunities for undergraduate learning and research using genomics", Invited Talk: Diversity of Genomic Applications across Entomological Disciplines symposium, Entomology Annual Meeting, virtual, November 2020

24. M. Wawersik[#], A. Allen, C. Arrigo, A. Arsham, D. Barnard, R. Burgess, J. DiAngelo, J. Jemc, C. Jones, L. Kadlec, A. Kleinschmit, J. Leatherman, D. Lopatto, M. Manier, H. Mistry, N. Mortimer, A. Nagengast, S. Parish, A. Rosenwald, J. Stamm, S.C.R. Elgin, **L.K. Reed**, "Genomics Education Partnership: Exploring best practices in implementation of a genomics CURE" The Allied Genetics Conference, virtual, April 2020
23. S.C.R. Elgin[#], A. Allen, A. Arsham, A. Goodman, C. Reinke, A. Rosenwald, D.L. Chalker, **L.K. Reed**, "Working Toward Sustainability for the Genomics Education Partnership" Plant and Animal Genome XXVIII Conference, San Diego, CA, January 2020
22. **L.K. Reed**[#], "Untargeted metabolomics analyses reveal genotype-by-environment interaction effects on obesity-related phenotypes in genetically diverse *Drosophila melanogaster* larvae." Invited Talk: PBT Section Symposium: From Fat to Fact: Recent Insights on Insect Lipid Metabolism, Entomology Annual Meeting, St. Louis, MO, November 2019
21. **L.K. Reed**[#], M. Van Stry, and the Faculty of the Genomics Education Partnership, "The Genomics Education Partnership: A community of practice that enhances research opportunities for students and faculty at diverse institutions", Transforming Undergraduate Education in the Molecular Life Sciences symposium, American Society for Biochemistry and Molecular Biology, San Antonio, TX, July 2019
20. C.H. Scott Chialvo[#], F. Tayyari, P. Chialvo, A. Edison, T. Werner, **L.K. Reed**, "Comparison of toxin tolerance mechanisms in the *Drosophila quinaria* species group", Evolution Meetings, Providence, RI, June 2019
19. **L.K. Reed**[#], "Using Parallelized Undergraduates to Understand Pathway Evolution in *Drosophila*" 60th Annual *Drosophila* Conference, Dallas, TX, March 2019
18. M. Manier[#], A. Arsham, M. Burg, C. Jones, J. DiAngelo, J. Jemc, L. Kadlec, J. Kennell, J. Leatherman, H. Mistry, A. Nagengast, C. Reinke, C. Small, J. Stamm, N. Valesquez Ulloa, S. Elgin, **L.K. Reed**, Genomics Education Partnership, "The Genomics Education Partnership: A community of practice that enhances research opportunities for students and faculty at diverse institutions." 60th Annual *Drosophila* Conference, Dallas, TX, March 2019
17. A. Bombin[#], O. Cunneely^{*}, K. Eickman^{*}, A. Ruesy^{*}, R. O'Rourke^{*}, **L.K. Reed** "The influence of natural diet and microbiota community on metabolic phenotype of *Drosophila melanogaster*" 60th Annual *Drosophila* Conference, Dallas, TX, March 2019
16. **L.K. Reed**[#], V. Oza, J. Aicher "Random Forest and Gaussian Graphical Model analysis of untargeted metabolomics data reveals strong dietary fat effects but little association with obesity phenotypes in the metabolome of genetically diverse *Drosophila melanogaster* larvae" 14th Annual Conference of the Metabolomics Society, Seattle, WA, June 2018
15. J. DiAngelo[#], A. Arsham, J. Braverman, A. Haberman, M.L. Johnson, C. Jones, L. Kadlec, J. Kagey, J. Kennell, S.C. Silver Key, J. Leatherman, J. Mierisch, H. Mistry, A. Nagengast, D. Paetkau, S. Parrish, J. Sanford, R. Spokony, M. Wawersik, **L.K. Reed**, Faculty and Students of the Genomics Education Partnership "The Genomics Education Partnership: Infusing Genomics into the Undergraduate Curriculum through Course-Based Research Experiences." 59th Annual *Drosophila* Research Conference, Philadelphia, PA, April 2018
14. **L.K. Reed**[#], "Do these genes make me look fat?: Quantitative trait locus mapping of genotype-by-diet interactions for metabolomic profiles underlying Metabolic Syndrome in *Drosophila*" 36th Summer Symposium in Molecular Biology; Metabolism: Disease Models and Model Organisms, Penn State, University Park, PA, May 2017
13. **L.K. Reed**[#], "*Drosophila* Metabolomics", *Drosophila* Research Ecosystem Meeting, HHMI Janelia Research Campus, Ashburn, VA February 2016

12. **L.K. Reed**[#], "Do these genes make me look fat?: Quantitative trait locus mapping of genotype-by-diet interactions for metabolomic profiles underlying Metabolic Syndrome in *Drosophila*" 2015 International Metabolomics Society Meeting, San Francisco, CA June 2015
11. **L.K. Reed**[#], "Do these genes make me look fat?: Genotype-by-diet interactions underlying metabolomic syndrome in *Drosophila*" 2014 SEC Symposium, Prevention of Obesity, Atlanta, GA, Sept 2014
10. **L.K. Reed**[#] " Genotype-by-Diet Interactions underlying Metabolomic Variation in *Drosophila*" Annual Meeting of the Society for the Study of Evolution, Raleigh, NC, June 2014
9. **L.K. Reed**[#], "Genotype-by-Diet Interaction Effects on Metabolomic Profiles." 55th Annual *Drosophila* Research Conference, San Diego, CA, March 2014
8. **L.K. Reed**[#], "Metabolomics and Systems Biology of Genotype-by-Diet Interactions underlying Metabolic Syndrome in *Drosophila*." International Metabolomics Society Conference, Glasgow, Scotland, UK July 2013.
7. **L.K. Reed**[#], A. Motsinger-Reif, D. Reif, and G. Gibson "Phenomics, Transcriptomics, and Metabolomics of Genotype-by-Diet Interactions underlying Metabolic Syndrome in *Drosophila*." 52nd Annual *Drosophila* Research Conference, San Diego, CA March 2011
6. **L.K. Reed**[#], S. Williams*, M. Springston*, J. Brown, N. Deighton, N. Glassbrook, M. Sokolowski, and G. Gibson "Metabolomics of Genotype by Environment Interactions underlying Metabolic Syndrome in *Drosophila*" ASBMB-Experimental Biology Meeting, New Orleans, LA April 2009
5. **L.K. Reed**[#], S. Williams*, M. Springston*, J. Brown, N. Deighton, N. Glassbrook, M. Sokolowski, and G. Gibson "Metabolomics of Genotype by Environment Interactions underlying Metabolic Syndrome in *Drosophila*" 50th Annual *Drosophila* Research Conference, Chicago IL March 2009
4. **L.K. Reed**[#], S. Williams*, M. Springston*, J. Brown, & G. Gibson Cryptic "GxE interactions and metabolic disease in *Drosophila*" Evolution Meeting, Minneapolis, MN, June 2008
3. **L.K. Reed**[#], B.A. LaFlamme* & T.A. Markow, "Genetic Architecture of Hybrid Male Sterility", 47th Annual *Drosophila* Research Conference, Houston, TX, March 2006
2. **L.K. Reed**[#], M. Nyboer*, & T.A. Markow, "Population Structure and Phylogenetics of the *Drosophila mojavensis* Species Group", Annual Meeting of the Society for the Study of Evolution, Chico, CA, June 2003
1. **L.K. Reed**[#] & T.A. Markow, "Early Events in Speciation: polymorphism for hybrid male sterility factors", Annual Meeting of the Society for the Study of Evolution, Champaign, IL, June 2002

(Inter)national Conference Poster Presentations (* indicates undergraduate co-authors, # presenting author, underlined award-winning presentation)

58. S.C.R. Elgin, W. Leung[#], A.G. Rosenwald, D. Lopatto, C.R. Hauser, C. Reinke, **L.K. Reed**, and the Genomics Education Partnership, "The Genomics Education Partnership: Introducing Undergraduates to Research by Engaging Them in Genome Annotation", Plant and Animal Genome XXVIII Conference, San Diego, CA, January 2020
57. M.S. Santisteban[#], M. VanStry, A.G. Rosenwald, W. Leung, J.M. Braverman, N.T. Mortimer, **L.K. Reed** "The Genomics Education Partnership (GEP): New Science Projects Expand the Opportunities for Student Participation in Genomics Research on the Evolution of Parasitoid Wasp Venoms and Insulin Pathways Genes", ASCB-EMBO 2019 Meeting, Washington, DC, December 2019
56. M. Van Stry[#], A. Allen, R. Burgess, M. Santisteban, D. Lopatto, W. Leung, A. Rosenwald, **L.K. Reed**

- “The Genomics Education Partnership: A community of practice that enhances research opportunities for students and faculty at diverse institutions”, ASCB-EMBO 2019 Meeting, Washington, DC, December 2019
55. **L.K. Reed**[#], V. Oza, The Faculty of the Genomics Education Partnership, “Leveraging course-based undergraduate research experiences to generate improved species-specific metabolic models to facilitate phylometabolomics”, Metabolomics Association of North America Annual Meeting, Atlanta, GA, November 2019
54. L. Haynes^{*#}, C. Scott Chialvo, S.A. Giambrone^{*}, O. Fish^{*}, **L.K. Reed**, “Characterizing the impact of a natural toxin mix on *Drosophila* species”, Evolution Meetings, Providence, RI, June 2019
53. O. Fish^{*#}, C. Scott Chialvo, R. Varney, **L.K. Reed**, “Assessing the genomes of *Drosophila* species for genetic indicators of alpha-amanitin tolerance”, Evolution Meetings, Providence, RI, June 2019
52. S.A. Giambrone^{*#}, J. Beveridge^{*}, O. Fish^{*}, L. Haynes^{*}, B. Lose^{*}, C. Scott Chialvo, **L.K. Reed**, “Quantifying the impact of the gut microbiome on toxin tolerance in mushroom-feeding *Drosophila*”, Evolution Meetings, Providence, RI, June 2019
51. J. Beveridge^{*#}, O. Fish^{*}, L. Haynes^{*}, S.A. Giambrone^{*}, C. Scott Chialvo, **L.K. Reed**, “Assessing the evolution of alpha-amanitin tolerance in mushroom-feeding *Drosophila*”, Evolution Meetings, Providence, RI, June 2019
50. S. Hays[#], I. Bose, W. Leung, S.C.R Elgin, **L.K. Reed**, “GEP and G-OnRamp: Enabling collaborative annotations of fungal genomes in research and educational settings.” Fungal Genetics Conference, Pacific Grove, CA, March 2019
49. W. Leung[#], S.C.R. Elgin, **L.K. Reed**, and the Genomics Education Partnership, “The Genomics Education Partnership: Collaborating with Science Partners to Engage Undergraduates in Genomics Research” 2019 Plant & Animal Genome Conference XXVII, San Diego, CA, January 2019
48. A. Bombin[#], O. Cunneely^{*}, K. Eickman^{*}, A. Ruesy^{*}, R. O’Rourke^{*}, **L.K. Reed** “The influence of natural diet and microbiota community on metabolic phenotype of *Drosophila melanogaster*” 60th Annual *Drosophila* Conference, Dallas, TX, March 2019
47. M. Van Stry, J.E.J. Bedard, A. Haberman, J. Marcette, J. Sanford, T. Sadikot, M. Santisteban, D. Lopatto, W. Leung, A. Rosenwald, **L.K. Reed**, "The Genomics Education Partnership: A Model for Successful Course-based Undergraduate Research Experiences." ASCB-EMBO Meeting, San Diego, December 2018
46. L. Griffin[#], C. Scott-Chialvo, O. Fish^{*}, **L.K. Reed**, "Effect of gut microbiota on α -amanitin tolerance in mycophagous *Drosophila*." Population, Evolutionary and Quantitative Genetics Conference Madison, WI, May 2018
45. C. Scott Chialvo[#], L. Griffin, O. Sorrell^{*}, O. Fish^{*}, **L.K. Reed**, "Characterizing a novel biochemical trait, mushroom toxin tolerance, in a *Drosophila tripunctata* population." Population, Evolutionary and Quantitative Genetics Conference Madison, WI, May 2018
44. Y. Nam[#], **L.K. Reed**, "Role of *LanA* in diet-induced Type-2 diabetes in *Drosophila melanogaster*", 59th Annual *Drosophila* Research Conference, Philadelphia, PA, April 2018
43. K. Lowman[#], B. Wyatt^{*#}, **L.K. Reed**, "Assessing the genetic- and sex- specific interactions of adult exercise and poor larval diet in *Drosophila*." 59th Annual *Drosophila* Research Conference, Philadelphia, PA, April 2018
42. V. Oza[#], **L.K. Reed**, "Constructing a Graphical Model of the *Drosophila melanogaster* metabolome", 58th Annual *Drosophila* Research Conference, San Diego, CA, March 2017
41. K.E. Lowman[#], B.J. Wyatt^{*}, **L.K. Reed** "Gently induced exercise in adult *Drosophila* exhibits genetic-and sex-specific interactions with larval diet", 58th Annual *Drosophila* Research Conference, San Diego, CA, March 2017
40. J. Sanford[#], M. Burg, J. DiAngelo, C. Jones, L. Kadlec, J. Kennell, SCS Key, J. Leatherman, A.

- Nagengast, **L.K. Reed**, C. Small, J. Stamm, N. Valaques-Ulloa, M. Wawersik, C. Shaffer, W. Leung, D. Lopatto, SRC Elgin, "The Genomics Education Partnership: A Bioinformatics Course-based Undergraduate Research Experience", 58th Annual *Drosophila* Research Conference, San Diego, CA, March 2017
39. **L.K. Reed**[#], W. Leung, C.D Shaffer, Genomic Education Partnership, S.C.R. Elgin, "A major role for retrotransposons in the expansion of the *Drosophila ananassae* F element", 58th Annual *Drosophila* Research Conference, San Diego, CA, March 2017
38. C. Scott Chialvo, F. Tyyari, T. Werner, A. Edison, **L.K.Reed**[#], "Characterizing the metabolism of the deadly mushroom toxin α -amanitin in mushroom-feeding *Drosophila*" 2016 NIH Common Fund Metabolomics Meeting, Bethesda, MD, September 2016
37. J. Leatherman, A. Allen, J. DiAngelo, M. Logan Johnson, C. Jones, L. Kadlec, H. Mistry, N. Nagengast, D. Paetkau, S. Parrish, **L.K. Reed**, C. Rolle, J. Sanford, K. Saville, C. Small, J. Stamm, M. Wawersik, L. Zhou, D. Lopatto, S. Elgin, The Genome Education Partnership, "The Genomics Education Partnership: Assessment of Key Elements of a Course-based Undergraduate Research Experience" The Allied Genetics Conference 2016, Orlando, FL July 2016
36. **L.K. Reed**[#], "The standard fly: a recommended addition to all *Drosophila* metabolomics studies" The Allied Genetics Conference 2016, Orlando, FL July 2016
35. A. Bombin[#], **L.K. Reed**, "The changing biodiversity of Alabama *Drosophila*: important impacts of seasonal variation, urbanization, and invasive species." The Allied Genetics Conference 2016, Orlando, FL July 2016
34. S. Mendez^{*}, L. Watanabe, R. Hill^{*}, M. Owens^{*}, J. Moraczewski, G.C. Rowe, N. Riddle, **L.K. Reed**[#], "The TreadWheel: a novel apparatus to measure genetic variation in response to low impact exercise for *Drosophila*" The Allied Genetics Conference 2016, Orlando, FL July 2016
33. **L.K. Reed**[#], "The standard fly: a recommended addition to all *Drosophila* metabolomics studies" 2016 International Metabolomics Society Meeting, Dublin, Ireland, June 2016
32. C. Scott Chialvo[#], F. Tyyari, T. Werner, A. Edison, **L.K.Reed**, "Characterizing the metabolism of the deadly mushroom toxin α -amanitin in mushroom-feeding *Drosophila*" 2016 International Metabolomics Society Meeting, Dublin, Ireland, June 2016
31. C. Scott[#], R. Che, D. Reif, A. Motsinger-Reif, **L.K. Reed**, "Dietary effects on the association between metabolite and gene expression using eigenvector metabolite analysis" 2015 International Metabolomics Society Meeting, San Francisco, CA June 2015
30. V. Oza[#], **L.K. Reed**, "Metabolomics approach to understand the effect of genotype and diet on metabolic profile of *Drosophila*." 2015 International Metabolomics Society Meeting, San Francisco, CA June 2015
29. V. Oza[#], **L.K. Reed**. "Metabolomics approach to understand the effect of genotype and diet on metabolic profile of *Drosophila*" 56th Annual *Drosophila* Research Conference, Chicago, IL, March 2015
28. T. L. Hallman^{*#}, **L.K. Reed**, The effect of long-term selection on *Drosophila melanogaster* in a high-fat environment. 56th Annual *Drosophila* Research Conference, Chicago, IL, March 2015
27. J.N. Nix^{*#}, **L.K. Reed**, QTL candidate gene expression correlation with diet-specific glucose levels. 56th Annual *Drosophila* Research Conference, Chicago, IL, March 2015
26. J.C. Henderson^{*#}, **L.K. Reed**, Population variation in phenotypic robustness to dietary perturbation. 56th Annual *Drosophila* Research Conference, Chicago, IL, March 2015
25. C. Scott[#], **L.K. Reed**, "Dietary effects on the association between metabolite and gene expression using eigenvector metabolite analysis" 56th Annual *Drosophila* Research Conference, Chicago, IL, March 2015
24. A. Bombin[#], **L.K. Reed**, "Influence of land use on *Drosophila* species and genetic diversity" Annual Meeting of the Society for the Study of Evolution, Raleigh, NC, June 2014

23. A.C. Tunckanat[#], **L.K. Reed** "Analysis of QTLs for dietary influences on body weight in *Drosophila*" Annual Meeting of the Society for the Study of Evolution, Raleigh, NC, June 2014
22. K. Dew-Budd[#], **L.K. Reed** "Transgenerational effect of diet on metabolic phenotypes." 55th Annual *Drosophila* Research Conference, San Diego, CA, March 2014
21. M.B. Kieffer^{*#}, J. Hubickey^{*}, **L.K. Reed** "The Effects of Laminin A Mutation on Metabolic Syndrome in *Drosophila melanogaster*." 55th Annual *Drosophila* Research Conference, San Diego, CA, March 2014
20. A.A. Gilchrist^{*#}, **L.K. Reed**, P. Moore. "Life History Determinants: Physiological Mechanisms of Egg Dumping in *Drosophila melanogaster* Using Extreme Phenotypes and Genetic Mapping." 55th *Drosophila* Research Conference, San Diego, CA, March 2014
19. A.F. Adams^{*#}, K.J. Dew-Budd, **L.K. Reed** "QTL affecting genotype-by-diet interactions of larval triglyceride levels." 55th Annual *Drosophila* Research Conference, San Diego, CA, March 2014
18. S.C.R. Elgin, C. Bazinet, J. Bedard, M. Burg, J. DiAngelo, C. Jones, L. Kadlec, J. Leatherman, H. Mistry, A. Nagengast, **L.K. Reed**, N.L. Reeves, J. Sanford, C. Small, S. Smith, L. Zhou, C. Shaffer, W. Leung, D. Lopatto "The Genomics Education Partnership: Implementing a Research-Based Genomics Project for Undergraduates." 55th Annual *Drosophila* Research Conference, San Diego, CA, March 2014
16. J.L. Merriam^{*#}, **L.K. Reed** "Effects of the Mediterranean Diet on Metabolic Phenotypes." 55th Annual *Drosophila* Research Conference, San Diego, CA, March 2014
15. A.C. Tunckanat[#], L. Leonard^{*}, J. Jarnigan, A. Davidson, **L.K. Reed** "Genetic Basis of Genotype-by-Environment (GxE) Interactions for weight in *Drosophila melanogaster*." 55th Annual *Drosophila* Research Conference, San Diego, CA, March 2014
14. R.A. Bishop^{*#}, **L.K. Reed** "The Roles of Endocannabinoids and Their Chemical Relatives in Regulating *Drosophila melanogaster* Metabolism." 55th Annual *Drosophila* Research Conference, San Diego, CA, March 2014
13. W. Leung, C. Shaffer, J. Buhler, S.C.R. Elgin, Faculty & Students of the Genomics Education Partnership (**L.K. Reed**, co-author) "Muller F elements maintain a distinctive pattern of gene structure over 40 million years of evolution". 55th Annual *Drosophila* Research Conference, San Diego, CA, March 2014
12. S.C.R. Elgin, M. Burg, J. DiAngelo, A. Haberman, C. Jones, L. Kadlec, S.C.S. Key, J. Leatherman, G.P. McNeil, H. Mistry, A. Nagengast, D.W. Paetkau, S. Parrish, **L.K. Reed**, S. Schroeder, S. Smith, M. Wawersik, L. Zhou, D. Lopatto "The Genomics Education Partnership (GEP): Bringing Genomics Research into Undergraduate Classrooms". 54th Annual *Drosophila* Research Conference, Washington, D.C, March 2013
11. J.M. Hubickey^{*#}, L. Perkins- Ross^{*}, **L.K. Reed** "The Use of a *Drosophila* Laminin A Mutant as a Model for Gestational Diabetes." 54th Annual *Drosophila* Research Conference, Washington, D.C, March 2013
10. K. Dew-Budd[#], R. Che, A. Motsinger-Reif, **L.K. Reed** "QTLs associated with female pupal weight on a high fat diet." 54th Annual *Drosophila* Research Conference, Washington, D.C, March 2013
9. S.C.R. Elgin, M. Burg, J. DiAngelo, A. Haberman, C. Jones, L. Kadlec, S.C.S. Key, J. Leatherman, G.P. McNeil, H. Mistry, A. Nagengast, D.W. Paetkau, S. Parrish, **L.K. Reed**, S. Schroeder, S. Smith, M. Wawersik, L. Zhou, C.D. Shaffer, W. Leung, "Evolution of a heterochromatic domain, the Muller F element, in *Drosophila* / *Sophophora*." 54th Annual *Drosophila* Research Conference, Washington, D.C, March 2013
8. S. Mendez^{*#}, A. Moss, K. Bray, **L.K. Reed** "The effect of two diets on the QTLs for triglyceride concentration in third instar larvae in *Drosophila melanogaster*." 54th Annual *Drosophila* Research Conference, Washington, D.C, March 2013
7. X. Zeng[#], **L.K. Reed**, "The effect of three types of diets on the phenotype of *Drosophila*

- melanogaster*." 53rd Annual *Drosophila* Research Conference, Chicago, IL, March 2012
6. S. Williams[#], **L.K. Reed**, G. Gibson "*Drosophila* as a model for Metabolic Syndrome: natural variation for genotype by environment interaction underlying hemolymph sugar concentrations" Evolution Meeting, Minneapolis, MN, June 2008
 5. **L.K. Reed**[#], B.A. LaFlamme*, T.A. Markow "QTLs for Male Sterility in F1 Hybrids between *Drosophila* *mojavensis* and *Drosophila* *arizonae*" 46th Annual *Drosophila* Research Conference, San Diego, CA, Spring 2005
 4. **L.K. Reed**[#], B.A. LaFlamme*, T.A. Markow "Genetic architecture of hybrid male sterility: what do Dobhansky-Muller incompatibilities really look like?" Evolutionary Genomics Conference, Tucson, AZ, Winter 2004
 3. **L.K. Reed**[#], B.A. LaFlamme*, T.A. Markow "Genetic architecture of hybrid male sterility: what do Dobhansky-Muller incompatibilities really look like?" Keystone Symposium on Quantitative Genetics and Natural Variation in Model Organisms, Breckenridge, CO, Winter 2004.
 2. **L.K. Reed**[#], & T.A. Markow, "Early Events in Speciation: polymorphism for hybrid male sterility factors", 43rd Annual *Drosophila* Conference, San Diego, CA, April 2002
 1. **L.K. Reed**[#] & T.A. Markow "The geographic pattern of hybrid male sterility between *Drosophila* *mojavensis* females and *D. arizonae* males," Annual Meeting of the Society for the Study of Evolution, Knoxville, TN, Summer 2001

Regional Research Presentations

Oral

2. C. Scott Chialvo, T. Werner, and **L.K. Reed**, "Examination of a novel trait, toxin tolerance, in the *quinaria* group" 2019 SEPEEG, Clemson, S.C., October 2019
1. **L.K. Reed** and the Faculty of the Genomics Education Partnership, "The Genomics Education Partnership: A community of practice that enhances research opportunities for students and faculty at diverse institutions", 2019 SEPEEG, Clemson, S.C., October 2019

Poster

6. V. Oza[#] and **L.K. Reed**, "Constructing a graphical (network) model of the *Drosophila melanogaster* metabolome", Midsouth Computational Biology and Bioinformatics Society (MCBIOS), Birmingham, AL March 2019
5. J. Jemc[#], J. Sanford, N. Mortimer, D. Lopatto, **L.K. Reed**, "The Genomics Education Partnership: Crowd-Sourcing Genomics Research", Midwest *Drosophila* Conf., Monticello, IL Nov. 2018
4. Y, Nam[#], **L.K. Reed**, "A New Way to Treat Type 2 Diabetes" 2017 SEPEEG, Laurel Hill, N.C., October 2017
3. K. Lowman[#], B. Wyatt*, **L.K. Reed**, "Gently induced exercise in adult *Drosophila melanogaster* exhibits genetic-and sex-specific interactions with larval diet" 2017 SEPEEG, Laurel Hill, N.C., October 2017
2. L. Griffin[#], **L.K. Reed**, C. Scott Chialvo, "Effect of Gut Microbiota on Alpha-Amanitin Tolerance in Mycophagous *Drosophila*" 2017 SEPEEG, Laurel Hill, N.C., October 2017
1. R. Bishop*[#], **L.K. Reed**, "The Roles of Endocannabinoids and Their Chemical Relatives in Regulating *Drosophila melanogaster* Metabolism" 2014 NCUR conference, Lexington, KY, April, 2014

Institutional Research Presentations

(* indicates undergraduate co-authors, # presenting author, underlined award-winning presentation)

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116. S. Hoffman, C. Rele, L.K. Reed, "Analyzing the evolutionary rate of wrd in connection to its position in the insulin signaling pathway"
115. J. Yordy, C. Rele, L.K. Reed, "Analysis of the Evolutionary Rate of the Insulin Signaling Pathway Gene trbl within Drosophila Species"
114. A. Giunta, C. Rele, L.K. Reed "An analysis of the rate of evolution of Tgo in the Insulin Signaling Pathway of Drosophila"
113. C. Kiser, B. Lose, A.G. Price, G. Keirn, L.K. Reed "The effects of sleep deprivation on metabolic health within Drosophila melanogaster"
112. M. Sharp, M. Chamberlain, C. Rele, L.K. Reed, "Investigating the molecular evolution of Akt1 in comparison to the insulin signaling pathway"
111. S. Shelley-Tremblay, C. Rele, L.K. Reed, "Analysis of dock in Drosophila species"
110. I. Martinand, C. Rele, L.K. Reed, "Analysis of RpS6 in Drosophila species"
109. R. Cowan, A. Myers, A. Ruesy, L.K. Reed "The effect of a natural diet on Drosophila melanogaster metabolic phenotype"
108. M. Chamberlain, T. Kolapo, S. Shelley-Tremblay, M. Tan, L.K. Reed "Comparing the Power Tower and the TreadWheel as two novel exercise equipments for genotype by diet by exercise studies using Drosophila melanogaster"

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107. A. Ruesy, A. Myers, A. Bombin, L.K. Reed, "Influence of the parental microbiota on the metabolic phenotype of Drosophila melanogaster larvae"
106. K. Eickman, R. Cowan, A. Bombin, L.K. Reed "The Effect of a Natural Diet on Drosophila melanogaster Metabolic Phenotype"
105. O. Cunneely, M. Su, A. Bombin, L.K. Reed "Determining the Influence of Gut Microbiota Composition on D. melanogaster Metabolic Phenotype"
104. M. Tan, L.K. Reed "Investigating Three Equipment Models Designed to Test the Gene-by-environment Impact of Exercise on Metabolic Syndrome, as shown in Drosophila melanogaster"
103. M. Tan, C. Kiser, A.G. Price, G. Keirn, C. Rele, L.K. Reed "An Analysis of the Tor Gene in the Insulin Signaling Pathway of D. melanogaster to Determine the Conservation of Genes"
102. J. Beveridge, C. Scott Chialvo, L.K. Reed, "Characterizing physiological mechanisms of α -amanitin toxin tolerance in mushroom-feeding Drosophila"
101. T. Hale, M. Sharp, B. Lose, M. Chamberlain, C. Rele, L.K. Reed, "Analyzing the evolutionary rate of chico relative to its position in the insulin signaling pathway"
100. T. Hale, M. Sharp, L.K. Reed, "Investigating odorant-binding protein mediated host-microbiome interactions in Drosophila melanogaster"
99. L. Haynes, C. Scott Chialvo, L.K. Reed "Characterizing the Impact of a Natural Toxin Mix in Drosophila Species"
98. B. Lose, C. Kiser, A.G. Price, G. Keirn, L.K. Reed, "The Effects of Sleep Deprivation on Metabolic Health Within Drosophila melanogaster"
97. S-A. Giambrone, C. Scott Chialvo, "Quantifying the Impact of the Gut Microbiome on Toxin Tolerance in Mushroom Feeding Drosophila"

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CV: Laura K. Reed

Poster

96. A. Bombin*[#], O. Cunneely, K. Eickman, A. Ruesy, M. Su, R. O'Rourke, C. Hart, A. Myers, and L.K. Reed, "The Influence of a Natural Diet and Microbiota Community on the Metabolic Phenotype of *Drosophila melanogaster*"
95. O. Fish*, J. Beveridge*[#], S.A. Giambrone, L. Haynes*, C. Scott Chialvo, L.K. Reed, "Assessing the evolution of alpha-amanitin tolerance in mushroom-feeding *Drosophila*"
94. L. Haynes*[#], J. Beveridge*, S.A. Giambrone*, O. Fish*, C. Scott-Chialvo, L.K. Reed, "Characterizing the impact of a natural toxin mix in *Drosophila* species"
93. V. Oza, L.K. Reed, "Constructing a graphical (network) model of the *Drosophila melanogaster* metabolome"
92. S.A. Giambrone*[#], J. Beveridge*, O. Fish*, L. Haynes*, B. Lose*, C. Scott-Chialvo, L.K. Reed, "Quantifying the impact of the gut microbiome on toxin tolerance in mushroom feeding *Drosophila*"

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Poster

91. T. Hale*[#], L. Griffin, L.K. Reed, "Odorant Binding Proteins and the Microbiome"
90. J. Beveridge*[#], C. Scott Chialvo, L.K. Reed, "Characterizing physiological mechanisms of alpha-amanitin toxin tolerance in mushroom-feeding *Drosophila*"
89. A. Ruesy*[#], R. O'Rourke*[#], A. Bombin, L.K. Reed, "The Influence of Natural Diet and Microbiota Community on Metabolic Phenotype of *Drosophila melanogaster*"
88. O. Fish*[#], C. Scott Chialvo, L.K. Reed "Assessing the evolution of alpha-amanitin tolerance in mushroom-feeding *Drosophila*"
87. R. Cowan*[#], M. Tan*[#], R. Hartline*[#], K. Lowman, L.K. Reed, "Investigating modern dietary interventions and adulthood exercise as therapeutic treatments for the negative effects of a juvenile high-fat diet through glucose and protein analysis."
86. S.A. Giambrone*[#], B. Lose*[#], C. Scott Chialvo, L.K. Reed, "Quantifying the Impact of the Gut Microbiome on Toxin Tolerance in Mushroom Feeding *Drosophila*"

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85. M. Tan*[#], R. Hartlin*[#], K. Lowman, L.K. Reed, "Investigating modern dietary interventions and adulthood exercise as therapeutic treatments for the negative effects of a juvenile high-fat diet through glucose and protein analysis."
84. L. Haynes*[#], C. Scott Chialvo, L.K. Reed, "Characterizing the impact of a natural toxin mix in *Drosophila* species."
83. K. Eickman*[#], A. Bombin, L.K. Reed, "The influence of gut microbiota composition on *D. melanogaster* metabolic phenotype."

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82. O. Cunneely*[#], K. MacIntire*, A. Bombin, L.K. Reed, "Determining the influence of gut microbiota composition on the metabolic phenotype in *Drosophila melanogaster*"

CV: Laura K. Reed

81. K.E. Lowman[#], B.J. Wyatt*, **L.K. Reed** "Assessing the genetic- and sex-specific interactions of adult exercise and poor larval diet in *Drosophila*"
80. V. Oza[#], **L.K. Reed** "Constructing a graphical (network) model of the *Drosophila melanogaster* metabolome."

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79. B. Wyatt^{**}, K. Lowman, **L.K. Reed**, "Assessing the genetic- and sex-specific interactions of adult exercise and poor larval diet in *Drosophila*"
78. L. Mafla^{**}, **L.K. Reed**, "Testing candidate genes thought to be associated with pupal weight in *D. melanogaster* "
77. C. Foster^{**}, T.N. Brown*, **L.K. Reed**, "Characterizing effects of nonnutritive artificial sweetener supplemented diets in *Drosophila melanogaster* metabolism"
76. O. Fish^{**}, C. Scott Chialvo, **L.K. Reed**, "Assessing the impact of a mushroom-toxin and gene inhibition on the physiology of *Drosophila tripunctata* "
75. O. Cunneely^{**}, K. MacIntyre^{**}, A. Bombin, **L.K. Reed**, "Determining the Influence of Gut Microbiota Composition on *D. melanogaster* Metabolic Phenotype"
74. W. Beavers^{**}, Y. Nam, **L.K. Reed**, "Comparing column and non-column, Trizol-based RNA extraction protocols for the study of LanA transcriptional expression and its genotype by diet interactions in *Drosophila melanogaster*"

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73. B. Wyatt^{**}, M. McCane^{**}, K. Lowman, **L.K. Reed**, "Gently induced exercise in adult *Drosophila melanogaster* exhibits genetic- and sex-specific interactions with larval diet"
 72. B. Schaeffer^{**}, B. Moye^{**}, **L.K. Reed**, "Quantifying Sleep Deprivation in *Drosophila melanogaster*"
 71. L. Mafla^{**}, **L.K. Reed**, "Testing candidate genes for genotype-by-diet interactions on body weight in flies"
 70. K. McIntyre^{**}, A. Bombin, **L.K. Reed**, "Transgenerational effects of microbiome-by-genotype-by-diet interactions on metabolic syndrome in *Drosophila melanogaster*"
 69. L. Griffin^{**}, C. Scott-Chialvo, **L.K. Reed**, "Characterizing the Role of Detoxification Genes in Resistance to the Mushroom Toxin α -amanitin in *Drosophila tripunctata*"
 68. T. Brown^{**}, C. Foster^{**}, **L.K. Reed**, "Testing the Effects of High Intensity Artificial Sweeteners on *Drosophila melanogaster*"
 67. W. Beavers^{**}, **L.K. Reed** "Determining the genetic basis of genotype-by-environment interactions of metabolic syndrome in *Drosophila melanogaster*"
66. **L.K. Reed**, "Exploring Modern Biology and the Scientific Process: Outreach to encourage STEM interest in middle school students" Tenth Annual Center for Community-Based Partnership Awards Luncheon, University of Alabama, April 2016

2016 Undergraduate Research and Creative Activity Conference

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Oral

65. D. Spangler^{**}, **L.K. Reed** "Sex Ratios and Response to Dietary Restriction in *Drosophila*"

melanogaster"

64. T.N. Brown*[#], **L.K. Reed** "Testing the Effects of High Intensity Artificial Sweeteners on *Drosophila melanogaster*"

Poster

63. R.M. Moore*[#], J. Nix*[#], **L.K. Reed** "The FlyBrator: A Novel Approach to Inducing Sleep Deprivation and Metabolic Syndrome in *Drosophila melanogaster*"
62. K. MacIntyre*[#], W. Beavers*[#], R. Bishop*, **L.K. Reed** "Determining the genetic basis of genotype-by-environment interactions of metabolic syndrome in *Drosophila melanogaster*"
61. L. Mafla*[#], A. Davis*[#], **L.K. Reed**, "Testing candidate genes thought to be associated with pupal weight in *D. melanogaster*"
60. J. Henderson*[#], **L.K. Reed**, "Population Variation in Phenotypic Robustness to Dietary Perturbation"
59. B. Schaeffer*[#], J. Nix*[#], **L.K. Reed**, "Quantifying Sleep Deprivation in *Drosophila melanogaster*"
58. O. Sorrell*[#], C. Scott-Chialvo, **L.K. Reed**, "Characterizing Mechanisms of Resistance to the Mushroom Toxin α -amanitin in Local Mycophagous *Drosophila tripunctata*"
57. L. Miller*[#], **L.K. Reed**, "Dietary Impacts on Triglyceride Levels in *Drosophila melanogaster*"
56. K. Lowman*[#], B. Wyatt*[#], **L.K. Reed**, "Implications of adulthood exercise in *Drosophila melanogaster* fed a high-fat diet during larval stages"
55. W. Freeman*[#], V. Oza, **L.K. Reed**, "Creating a *Drosophila* Metabolomics Database"
54. Z. Mason*[#], **L.K. Reed**, "Effects of High Fat Diet on Glucose Concentration in *Drosophila melanogaster*"
53. P. Hinkel*[#], **L.K. Reed**, "Simulating Complex Genetic Organism Evolution"
52. A. Schwitzgebel*[#], **L.K. Reed**, "Mapping the Metabolome of *Drosophila melanogaster* and *Drosophila pseudoobscura*"

2015 Undergraduate Research and Creative Activity Conference

April 2015 University of Alabama

Oral

51. R. Bishop*[#], **L.K. Reed**, "Identifying pupal-weight modulating genes which interact with diet in *Drosophila melanogaster*"

Poster

50. L. Miller*[#], **L.K. Reed**, "Dietary Impacts on Triglyceride Levels in *Drosophila melanogaster*"
49. R. Hill, *[#] **L.K. Reed**, "The positive effects of exercising using the TreadWheel for *Drosophila melanogaster*"
48. M. Owens*[#], **L.K. Reed**, "Impact of high fat larval diet and adulthood exercise in *Drosophila melanogaster*"
47. J. Henderson*[#], **L.K. Reed**, "Population variation in phenotypic robustness to dietary perturbation"
46. T. Hallman*[#], **L.K. Reed**, "The Effect of Founder Selection on *Drosophila melanogaster* in a High-Fat Environment"
45. A. Davis*[#], **L.K. Reed**, "The effects of a high fat diet on glucose concentration in *Drosophila melanogaster*"
44. A. Adams*[#], **L.K. Reed**, "QTL affecting genotype-by-diet interactions of pupal body weight"
43. R.M. Moore*[#], B. Schaeffer*[#], **L.K. Reed**, "A Novel Approach to Inducing Sleep Deprivation and Metabolic Syndrome in *Drosophila melanogaster*"

CV: Laura K. Reed

42. P. Hinkel*[#], **L.K. Reed**, "Simulating Complex Genetic Evolution"
41. J. Nix*[#], **L.K. Reed**, "The Effect of Glucose Level and Diet on Gene Expression"
40. T. Hearing*[#], **L.K. Reed**, "The effects triglyceride levels have on the health of *Drosophila melanogaster*"
39. K. MacIntyre*[#], **L.K. Reed**, "Influence of humans' land use on *Drosophila* species and genetic diversity"

2014 Undergraduate Research and Creative Activity Conference

April 2014 University of Alabama

Oral

38. S. Mendez*[#], **L.K. Reed**, "TreadWheel - Novel Exercise Apparatus for *D. melanogaster*."

Poster

37. L. Leonard*[#], **L.K. Reed**, "Genotype-by-Diet Interactions for Body Weight in *Drosophila melanogaster*"
 36. A. Adams*[#], **L.K. Reed**, "QTL affecting genotype-by-diet interactions of larval triglyceride levels"
 35. R. Bishop*[#], **L.K. Reed**, "The Roles of Endocannabinoids and Their Chemical Relatives in *Drosophila melanogaster* Metabolism"
 34. J. Hubickey*[#], M. Kieffer, **L.K. Reed**, "The Effects of Laminin A Mutation on Metabolic Phenotypes in *Drosophila melanogaster*"
 33. T. Hallman*[#], **L.K. Reed**, "Genotype-by-Diet Interaction on Protein normalized Triglyceride levels in *Drosophila melanogaster*"
 32. A. Gilchrist*[#], **L.K. Reed**, "Life History Determinants: Physiological Mechanisms of Egg Dumping in *Drosophila melanogaster* Using Extreme Phenotypes and Genetic Mapping"
 31. J. Merriam*[#], **L.K. Reed**, "Effects of the Mediterranean Diet on Metabolic Phenotypes"
 30. C. Talley*[#], **L.K. Reed**, "Genotype-by-diet interaction effect on blood sugar in *Drosophila*"
29. J. Hubickey*[#], (**L.K. Reed**), "Personalized Dieting" TideTalks February 28th, 2014, University of Alabama

2013 Undergraduate Research and Creative Activity Conference

April 2013 University of Alabama

Oral

28. S. Mendez*[#], **L.K. Reed**, "TreadWheel - Novel Exercise Apparatus for *D. melanogaster*"

Poster

27. D. Davis*[#], **L.K. Reed**, "Insulin/TOR Gene Mutations and Triglyceride Storage in *Drosophila*"
26. J. Hubickey*[#], **L.K. Reed**, "The Use of a *Drosophila* LanA Mutant as a Model for Gestational Diabetes"
25. N. Izor*[#], **L.K. Reed**, "Genotype-by-Diet Interactions in Blood Glucose Levels of *Drosophila melanogaster*"
24. L. Leonard*[#], **L.K. Reed**, "The Effects of High Fat and Normal Diets on the Dark Pupae Weight of *Drosophila melanogaster*"
23. J. Merriam*[#], **L.K. Reed**, "Mediterranean Diet Modeled in *Drosophila melanogaster*"
22. D. Nadella*[#], **L.K. Reed**, "Gene Effects on Triglyceride Concentration in *Drosophila melanogaster*"

21. C. Paiva^{*#}, **L.K. Reed**, "Genetic Basis of Genotype-by-Environment Interactions Underlying Physiological Modules of Metabolic Syndrome-like Symptoms in *Drosophila*"
20. C. Talley^{*#}, **L.K. Reed**, "Egg Dumping Patterns in *Drosophila melanogaster*"
19. A. Adams^{*#}, **L.K. Reed**, "The study of genetic variation in *Drosophila melanogaster*: energy allocation for reproduction"
18. R. Bishop^{*#}, **L.K. Reed**, "The Roles of Pupal Adhesion Genes in Regulating *Drosophila melanogaster* Pupal Weight"
17. A. Gilchrist^{*#}, **L.K. Reed**, "Genic Effects on Induced Egg Dumping in Female *Drosophila melanogaster*"
16. M. Kieffer^{*#}, **L.K. Reed**, "The Effects of Diet on Pupal and Larval Survival Rate and Development Time in *Drosophila melanogaster*"

2012 Undergraduate Research and Creative Activity Conference
April 2012 University of Alabama

Oral

15. S. Mendez^{*#}, **L.K. Reed**, "The effect of two diets on the lipid concentration in third instar larvae in *Drosophila melanogaster*"

Poster

14. K. Bray^{*#}, **L.K. Reed**, "Lipid Storage for Insulin/Tor Mutants"
13. D. Davis^{*#}, **L.K. Reed**, "Third Chromosome Mutations and Lipid Storage in *Drosophila*"
12. J. Hubickey^{*#}, **L.K. Reed**, "The Effect of Mutation in Laminin A Gene on Egg Size in *Drosophila melanogaster*"
11. L. Leonard^{*#}, **L.K. Reed**, "The Effects of High Fat and Normal Diets on the Dark Pupae Weight of *Drosophila melanogaster*"
10. D. Nadella^{*#}, **L.K. Reed**, "Lipid Analysis of Previously Implicated Mutations in *Drosophila melanogaster*"
9. L. Perkins^{*#}, **L.K. Reed**, "Evaluation of Glucose Levels in *Drosophila* and the Potential Protective Effect of the LanA Gene"
8. N. Izor^{*#}, **L.K. Reed**, "Genotype-by-Diet Interactions in Blood Sugar Levels in *Drosophila melanogaster*"
7. K. Dew, **L.K. Reed**, G. Gibson "Gene by Diet Interactions Relating to Metabolic Traits for Lab Adapted Lines", 19th Annual NC State Undergraduate Research Symposium, April 2010
6. KT. Freeman^{*#}, **L.K. Reed**, G. Gibson "The Effects of Diet on Weight and Gene Expression in *Drosophila melanogaster*", The 8th Annual NC State University Undergraduate Summer Research Symposium, July 30, 2009
5. O.R. Manzer^{*#}, L.K. Reed, G. Gibson. *Natural Metabolic Weight Gain of Drosophila*, The 8th Annual NC State University Undergraduate Summer Research Symposium, July 30, 2009
4. Williams, S^{*#}, **L.K. Reed**, G. Gibson, "*Drosophila* as a Model for GxE Interactions behind Metabolic Syndrome" 18th Annual NC State University Undergraduate Research Symposium April 16, 2009
3. K.T. Freeman^{*#}, **L.K. Reed**, G. Gibson "The Effects of Diet on Weight in *Drosophila melanogaster*: A Genetic and Environmental Interaction" 18th Annual NC State University Undergraduate Research Symposium April 16, 2009
2. Williams, S^{*#}, **L.K. Reed**, G. Gibson, "*Drosophila* as a Model for Metabolic Syndrome: Natural Variation for Genotype by Environment Interaction Underlying Hemolymph Sugar Concentrations" Seventh Annual Undergraduate Summer Research Symposium, July 31, 2008

1. M.M. Springston*#, L.K. Reed, G. Gibson, "Natural Variation of Lipid Content in Wild-type *Drosophila melanogaster* and its Implications as a Model for Human Metabolic Syndrome" 17th Annual NC State University Undergraduate Research Symposium April 21, 2008

Invited Research Seminars

15. West Coast Metabolomics Center, U.C. Davis, December 2020
14. Biology Depart., Graduate Student Invited Speaker, Michigan Technical University, September 2019
13. Nutrition Department, Ohio State University, March 2018
12. Center for Genome Research and Biocomputing, Oregon State University, January 2017
11. Biology Department, University of Alabama, September 2016
10. Biology Department, Auburn University, November 2015
9. Biology Department, UAB, September 2015
8. School of Community Health Sciences, University of Alabama, May 2015
7. Biology Department, University of Oregon, May 2012
6. Genetics Department, University of Georgia, February 2012
5. Entomology Department, Cornell University, November 2011
4. Hudson Alpha Institute for Biotechnology, September 2011
3. Biology Department, Mississippi State University, February 2011
2. Nutritional Obesity Research Center, UAB, January 2011
1. Genetics Department, North Carolina State University, September 2009

Mentorship

Research Mentorship of Postdoctoral Researchers

1. Dr. Clare Scott Chialvo, Fall 2014 – Summer 2019, University of Alabama
Award: Metabolomics Society Early Career Travel Award, 2016
Co-PI on NSF Dimensions of Biodiversity Grant, 2017-2022
Present position: Assistant Professor, Appalachian State University

Research Mentorship of Graduate Students

15. Oluwatobi Fijabi (PhD), January 2021-present
Graduate Council Fellowship, University of Alabama, 2021
14. Tolulope Kolapo (PhD), January 2021-present
13. Chinmay Rele (PhD), January 2021-present
12. Logan Griffin, Masters 2020, University of Alabama
" Effect of gut microbiota on α -amanitin tolerance in *Drosophila tripunctata*"
The Ralph L. Chermock Prize Graduate Award, Biological Sciences, University of Alabama, 2020
Placement: Research Technician, University of Alabama
11. Katie Sandlin, Masters 2019, University of Alabama
"Insulin signaling evolution in Metazoa"
The Graham Prize Graduate Award, Biological Sciences, University of Alabama 2019
The Inge and Ilouise Hill Research Fellowship, Biological Sciences, University of Alabama 2019
Placement: Curriculum Specialist, Genomics Education Partnership, University of Alabama
10. Andrei Bombin PhD 2020, University of Alabama
"Influence of lab adapted natural diet, genotype, and microbiota on *Drosophila melanogaster* larvae"

CV: Laura K. Reed

Finalist: Three Minute Thesis competition, University of Alabama, 2016
Graduate Council Fellowship, University of Alabama, 2018/2019
The Ralph L. Chermock Prize Graduate Award, Biological Sciences, University of Alabama, 2019
Placement: Postdoctoral Fellow, Vanderbilt University

9. Vishal Oza, PhD 2019, University of Alabama
“Constructing a graphical model of the *Drosophila melanogaster* metabolome”
Metabolomics Society Early Career Travel Award, 2015
Second Place Poster at Biofest, University of Alabama, 2018
Graduate Council Fellowship, University of Alabama, 2019
Placement: Postdoctoral Fellow, University of Alabama- Birmingham
8. Kelsey Lowman, Masters 2018, University of Alabama
“A *Drosophila* model of adult exercise and the genetic- and sex- specific interactions driving variation in metabolic phenotypes acquired through an obese youth”
Finalist: Three Minute Thesis competition, University of Alabama, 2017
Semi-finalist: Three Minute Thesis competition, University of Alabama, 2016
Placement: NIH Oxford-Cambridge Ph.D. program in infectious disease
7. Youn Ji Nam, Spring 2017-Summer 2018, University of Alabama
Present position: PhD, Jenny Lab, University of Alabama
6. Daryll Spangler, Masters - Anthropology 2018, University of Alabama
“Human canalization and female growth buffering with *Drosophila* as a model organism”
Placement: Research Associate, Dept. Nephrology, UAB
5. Andrei Bombin, Masters 2015, University of Alabama
“The changing biodiversity of Alabama *Drosophila*: important impacts of seasonal variation, urbanization, and invasive species”
PhD 2020, Biological Sciences, University of Alabama
Placement: Postdoctoral Fellow, Vanderbilt University
4. Ayse Cigdem Tunckanant, Masters 2015, University of Alabama,
“The gut microbiota of *Drosophila*: ecology, evolution, and health”
3. Joseph Aicher, Masters - Mathematics 2015, University of Alabama
“Metabolic network inference with the graphical lasso”
Placement: MD/PhD program, University of Pennsylvania Medical School
2. Kelly Dew-Budd, Masters 2014, University of Alabama
“Quantitative trait loci associated with the genotype-by-diet interaction for larval triglycerides and transgenerational effects of a high fat diet in *Drosophila melanogaster*”
Placement: PhD program, Plant Sciences, University of Arizona
1. Xiangpei Zeng, Fall 2011-Spring 2012, University of Alabama
Placement: PhD Program University of North Texas Health Science Center

Research Mentorship of Undergraduate Students

(* presented at (inter)national meeting, # underrepresented minority)

93. Alex Hanisak, Fall 2021 – present, University of Alabama
92. Derek Maas, Summer 2021-present, University of Alabama

91. Graham Jones, Summer 2021-present, University of Alabama
90. Alyssa Koehler, Summer 2021-present, University of Alabama
89. Jhiam Dasgupta, Summer 2021-present, University of Alabama
88. Ashley Morgan, Summer 2021-present, University of Alabama
87. Jade Miller, Spring 2021-present, University of Alabama
86. Annie Backlund, Spring 2021-present, University of Alabama
85. Jordan Albrecht, Spring 2021-present, University of Alabama
84. Abbie Giunta, Fall 2020-present, Randall Research Scholar, University of Alabama
83. Ines Martinand, Fall 2020-present, Randall Research Scholar, University of Alabama
82. John Yordy, Fall 2020-present, Randall Research Scholar, University of Alabama
81. Sean Shelley-Tremblay, Fall 2020-present, Randall Research Scholar, University of Alabama
80. Sam Hoffman, Spring 2020-Spring 2021, B.S. 2021, University of Alabama
Award: 1st Place, Completed Research, URCA 2021, University of Alabama
79. Grace Keirn, Spring 2020-present, University of Alabama
Award: Excellence in Research, URCA 2021
78. McKenzie Chamberlain, Fall 2019-present, University of Alabama
77. Abigail Myers[#], Fall 2018-present, University of Alabama
Award: Excellence in Research, URCA 2021
76. Caroline Hart, Fall 2019-Spring 2020, B.S. 2021, University of Alabama
75. Anna Grace Price[#], Fall 2019-present, University of Alabama
Award: Excellence in Research, URCA 2021
74. Cole Kiser, Fall 2019-present, University of Alabama
Award: Excellence in Research, URCA 2021
73. Maddison Sharp, Summer 2019 – present, University of Alabama
72. Rachael Cowan, Spring 2019- present, University of Alabama
Award: Excellence in Research, URCA 2021
71. Mengting (Sue) Su, Spring 2019 - Spring 2020, Honors B.S. 2020, University of Alabama
Placement: Yale School of Public Health
70. Lauren Haynes, Fall 2018-Spring 2020, Randall Scholar, Honors B.S. 2020, University of Alabama
Placement: PhD, Duke University Program in Genetics and Genomics
69. Abigail Ruesy, Fall 2018-Spring 2021, Honors B.S. 2020, University of Alabama
Awards: 1st Place in URSCA 2019 Poster Presentation in Natural Sciences and Mathematics
Excellence in Research, URCA 2021
Arts & Sciences UCRA grant 2020
Placement: STEM to the MBA program, University of Alabama
68. Ryan O'Rourke, Fall 2018-Fall 2019, Honors B.S. 2020, University of Alabama
67. Bailey Lose, Fall 2018-Spring 2021, Honors B.S. 2021, University of Alabama
Award: Excellence in Research, URCA 2021
66. Jordan Beveridge, Fall 2018-Spring 2020, B.S. 2020, University of Alabama
Placement: Laboratory Technician, Bayer Crop Science
65. J. Tyler Hale, Summer 2018 - Spring 2019, B.S. 2020 University of Alabama
Placement: M.D. MPH Candidate at East Tennessee State University
64. Rosemary Hartline, Summer 2018 – Spring 2019, University of Alabama
Award: Arts & Sciences UCRA grant 2019
2019 URCA poster award
Placement: Medical Operations Consultant at Unum
63. Michelle Tan, Spring 2018 - Spring 2021, Honors B.S. 2021, University of Alabama
Award: 2019 URCA poster award

- Placement: Dental School, University of Colorado
62. Sarah-Ashley Giambrone, Spring 2018 - Spring 2020, Honors B.S. 2020, University of Alabama
Award: The James D. and Donjette Yarbough Scholarship, Biological Sciences, University of Alabama 2019
Placement: Technician, Cahaba Pain and Spine Care
61. Kira Eickman, Spring 2018 - Spring 2020, Honors B.S. 2020, University of Alabama
Award: Arts & Sciences UCRA grant 2019
2019 URCA poster award
Placement: University of Central Florida College of Medicine
60. Nichole Cheatum#, Spring 2018, University of Alabama
Placement: French and Biology Tutor, Applied Tutoring LLC
59. Olivia Fish, Spring 2017 – Summer 2019, Honors B.S. 2019, University of Alabama
Placement: Research Internship National Institutes of Health
Award: 2019 Randall Outstanding Undergraduate Research Award
58. Katie Sandlin, Spring 2017, University of Alabama
Placement: Masters Student University of Alabama
57. Owen Cunneely, Spring 2017 - Spring 2020, Honors B.S. 2020, University of Alabama
Award: Arts & Sciences UCRA grant 2018
Biofest Poster - Honorable Mention 2018
2019 Randall Outstanding Undergraduate Research Award
Grantland and Louise Rice Scholarship, Biological Sciences, 2019
Placement: Owner, The Repair Genius - Cool Springs Computer Repair
56. Maegan McCane#, Fall 2016 - Spring 2017, B.S. Spring 2018, University of Alabama
Placement: Masters' Program, Department of Anthropology, University of Alabama
55. Malik Seals#, Fall 2016, B.S. 2019, University of Alabama
Placement: Graduate Research Student Multiple Sclerosis Center, University of Alabama-Birmingham
54. Carson Foster, Summer 2016 – Spring 2018, Honors B.S. 2018, University of Alabama
Placement: M.D. Student, UAB Medical School
Award: Arts & Sciences UCRA grant 2017
53. Logan Griffin, Summer 2016 - Summer 2017, Honors B.S. 2018, University of Alabama
Placement: Research technician, University of Alabama
Award: Arts & Sciences UCRA grant 2017
52. Brandon Moye, Spring 2016 - Spring 2018, University of Alabama
Placement: Engineering Co-op - International Paper
51. Daryll Spangler, Fall 2015-Spring 2016, B.S. 2016 University of Alabama - first generation college student
Placement: Research Associate, Dept. Nephrology, UAB
Award: Honorable Mention Natural Sciences Oral Presentation - 2016 Undergraduate Research Conference, University of Alabama
Masters in Anthropology, 2018, University of Alabama
50. Whitney Beavers, Fall 2015 – Spring 2018, Honors B.S. 2018, University of Alabama
Placement: Lincoln Memorial University-DeBusk College of Osteopathic Medicine
49. Brelahn Wyatt**, Fall 2015 – Spring 2018, Honors B.S. 2018 University of Alabama
Placement: Uniformed Services University of the Health Sciences
Award: Arts & Sciences UCRA grant
48. Will Freeman, Fall 2015 - Spring 2016, Computer-Based Honors, University of Alabama

- Placement: Care Coordinator - Clinic Leader at UAB School of Medicine Equal Access
Birmingham
47. Andrew Schwitzgebel, Fall 2015 - Spring 2016, Computer-Based Honors, University of Alabama
Placement: AmeriCorps -The Watershed Stewards Program's (WSP)
46. Olivia Sorrell[#], Spring 2015 - Fall 2016, Honors B.S. 2016, University of Alabama
Placement: University of Alabama - Birmingham Dental School
45. Zavier Mason[#], Spring 2015 - Fall 2016, Honors B.S. 2017, University of Alabama,
Award: Honorable Mention Natural Sciences Poster - 2016 Undergraduate Research Conference,
University of Alabama
Placement: Senior Interviewer, PRISM Health - Emory University
44. Beau Schaeffer, Spring 2015 - Fall 2017, University of Alabama,
Placement: Microbiology Lab Technician – Deibel Laboratories
Award: Arts and Sciences UCRA grant
43. Timothy (Nelson) Brown, Spring 2015 - Summer 2017, University of Alabama
Placement: Chemical Engineer at Inventure Renewables
42. Kara MacIntyre, Spring 2015 – Spring 2018, Honors B.S. 2018, University of Alabama
Placement: University of Virginia Medical School
Award: Arts & Sciences UCRA grant
41. Kelsey Lowman*, Spring 2015 - Spring 2017, Honors B.S. 2017, University of Alabama,
Placement: NIH Oxford-Cambridge Ph.D. program in infectious disease
Awards: Arts & Sciences UCRA grant
2017 Randall Outstanding Undergraduate Research Award
Masters of Biology, 2018, University Scholar, University of Alabama
40. Laura Mafla[#], Spring 2015 – Spring 2018, Honors B.S. 2018, University of Alabama
Placement: Johns Hopkins University Medical School
Award: Arts & Sciences UCRA grant
39. Preston Hinkel, Fall 2014 - Spring 2016, Computer-Based Honors B.S. 2017, University of Alabama
Placement: Master of Business Administration, University of Alabama
38. Trevor Hearing, Fall 2014-Spring 2015, Honors B.S. 2018, University of Alabama
Placement: Air Force ROTC
37. Levi Miller, Summer 2014 - Spring 2016, Honors B.S. 2016, University of Alabama
Placement: Ohio State University Dental School
36. Andrew Davis, Spring 2014 - Spring 2016, Honors B.S. 2016, University of Alabama
Placement: University of Florida Medical School
Awards: 2nd Place Poster Presentation - 2015 Undergraduate Research Conference, University of
Alabama
35. Roger (Michael) Moore, Spring 2014 - Summer 2016, Honors B.S. 2016, University of Alabama
Placement: University of Michigan Medical School
Awards: Arts & Sciences UCRA grant
34. Leigh Ann Pouncey, Spring 2014 - Summer 2014, B.S. 2014, University of Alabama
Placement: PhD, Public Health, Epidemiology, and Biostatics, University of Nevada - Las Vegas
33. John Henderson*, Fall 2013 - Spring 2016, Honors B.S. 2016 University of Alabama
Placement: PhD UAB Biomedical Engineering
32. Meredith Owens, Fall 2013 - Fall 2015, B.S. 2016, University of Alabama
Placement: Nursing School, Emory University
31. Rachel Hill, Fall 2013- Fall 2015, B.S. Honors 2016, University of Alabama
Placement: Master of Health Administration, Virginia Commonwealth University
30. Jaron Nix*, Fall 2013 - Spring 2016, Honors B.S. 2016, University of Alabama

CV: Laura K. Reed

- Placement: Masters in Biomedical Engineering, University of Florida
Award: HHMI Research Fellow 2014, University of Alabama
29. Tanner Hallman*, Summer 2013 - Fall 2015, B.S. 2016
Placement: UAB Medical School
Award: HHMI Research Fellow 2014, University of Alabama
28. Ruth Bishop*, Spring 2013 - Fall 2015, Honors B.S. 2016
STEM MBA, University of Alabama
Placement: University of Michigan Medical School
Awards: HHMI Research Fellow - 2013, University of Alabama
Student Government Association Research Grant, 2015, University of Alabama
27. Ashley Gilchrist*, Fall 2012 - Fall 2014, Honors B.S. 2015
Award: HHMI Research Fellow - 2013, University of Alabama
Placement: Nursing School, Keiser University
26. Alison Adams*, Fall 2012 - Summer 2015, Honors B.S. 2015
Placement: DO program, University of South Alabama medical school
Award: HHMI Research Fellow - 2013, University of Alabama
25. Christie Talley, Fall 2012 - Fall 2014, Honors B.S. 2015,
Placement: MD program, LSU Health Sciences Center
Award: Honorable Mention Natural Sciences Poster - 2014 Undergraduate Research Conference,
University of Alabama
24. Jordyn Merriam Johnson*, Summer 2012-Summer 2015, Honors B.S. 2014, University of Alabama
Placement: Environmental Engineer at Hunt Refining
Award: Honorable Mention Natural Sciences Poster - 2013 Undergraduate Research Conference,
University of Alabama
23. Matthew Kieffer*, Spring 2012-Summer 2014, Honors B.S. 2014
Placement: Research Specialist University of Chicago
Award: HHMI Research Fellow - 2013, University of Alabama
22. Leah Leonard, Fall 2011-Spring 2014, Honors B.S. 2014
Placement: Dental School, Vanderbilt University
Award: 2nd-Place Natural Sciences Poster - 2013 Undergraduate Research Conference, University
of Alabama
21. Joana Hubickey*#, Summer 2011-Summer 2014, Honors B.S. 2014
Placement: M.D. Student, UAB Medical School
Award: HHMI Research Fellow - 2012, University of Alabama
20. Sean Mendez*#, Spring 2011-Spring 2014, Honors B.S. 2014
Placement: M.D. Student University of Buffalo Medical School
Award: Oral Presentation Finalist - 2013 Undergraduate Research Conference, University of
Alabama
19. Cheyenne Paiva#, Spring 2012-Summer 2013, Computer Based Honors Student, University of
Alabama
18. Nicholas Izor, Fall 2011- Summer 2013, Honors B.S. 2013, University of Alabama
Placement: M.D. student, UAB Medical School
17. Dana Davis, Spring 2011- Summer 2013, Honors B.S. 2013, University of Alabama - first-generation
college student
Placement: University of Central Florida, Biology Master's Program
16. Divya Nadella, Fall 2010-Summer 2013, Honors B.S. 2013, University of Alabama
Placement: M.D. Student, University of South Alabama
15. Lauren Ross Perkins, Summer 2011-Spring 2012, post-baccalaureate, University of Alabama

CV: Laura K. Reed

- Placement: Registered Nurse, Marshal Medical Centers, Guntersville, AL
14. Katie Bray, Spring 2011-Summer 2012, B.S. 2012, University of Alabama
Placement: Nursing School, University of South Alabama
 13. Micah Yoder, Spring 2011, B.S. 2011, University of Alabama
 12. Elyse Love[#], Fall 2010-Spring 2011, B.S. 2011, University of Alabama, Computer Based Honors
M.D. student, Emory University School of Medicine
Placement: Brookwood Baptist Health, Intern, Birmingham, AL
 11. Taylor Scruggs, Fall 2010-Spring 2011, B.S. 2011 University of Alabama, Computer Based Honors
M.D. student, Mississippi University School of Medicine
Placement: Medical Resident, Anesthesiology, University of Alabama Medical Center
 10. James Shivers, Fall 2010-Spring 2011, B.S. 2011, University of Alabama
 9. Kelly Dew, Fall 2009-Spring 2010, Honors B.S. 2010, North Carolina State University
Placement: Masters of Science in Biological Sciences, University of Alabama
 8. Stephanie Williams*, Spring 2007-Spring 2010, Honors B.S. 2010, North Carolina State University
Placement: Statistical Data Analyst, College of Medicine, University of North Carolina
Masters of Science in Human Genetics/Genetic Epidemiology, Johns Hopkins University
Awards: 2-year undergraduate HHMI research fellowship Summer 2008-Spring 2010,
Undergraduate Diversity Scholarship to the 2008 Evolution Meetings
 7. Oliver Manzer, Summer 2009-Fall 2009, B.S. 2013, North Carolina State University
Placement: Biomedical Engineering Technician, Zexi Biomedical Innovations
Award: NCSU RISE Incoming Student Research Fellowship Summer 2009
 6. Kenda Freeman[#], Summer 2008-Fall 2009, B.S. 2009, North Carolina State University
Award: AGEP Academic Year Research Experience Fall 2008-Fall 2009
Placement: Environmental Science and Engineering, UNC
 5. Kristen Davis, Summer 2008-Summer 2009, Honors B.S. 2009, North Carolina State University
Ph.D. student, Dept. of Animal Sciences, Cornell University
 4. Andrew Henry, June 2008- December 2008, North Carolina State University
Placement: Project Engineer, Eaton Corporation
 3. Mastafa Springston, Summer 2007-Spring 2008, Honors B.S. 2008 North Carolina State University
Placement: M.D. student, Univ. of North Carolina School of Medicine,
Medical Resident, Department of Emergency Medicine, University of Washington
Award: Outstanding poster award at NCSU undergraduate research symposium, Spring 2008
 2. Brooke A. LaFlamme, Spring 2003-Spring 2006, Honors B.S. 2006 Univ. of Arizona.
Placement: Ph.D., Dept. of Genetics Cornell University
Awards: Outstanding Senior Award, Dept. of Ecol and Evol. Biol. Univ. of Arizona, Spring 2006,
Outstanding Undergraduate Researcher, College of Science Univ. of Arizona, Spring 2006
 1. Megan Nyboer, Spring 2002-Spring 2003, B.S. 2005 Univ. of Arizona.
Placement: Associate Vet, VCA Bay Area Veterinary Specialists & Emergency Hospital D.M.V.,
Cornell University College of Veterinary Medicine

Graduate Student Committees

35. Kehinde Ogunmola (Chemistry), PhD, 2021-present
34. Philip Harden, MS, 2021-present
33. Jiayue Guo (Human Nutrition), PhD, 2020-present
32. Amber Thibeaux, MS, 2020-present

CV: Laura K. Reed

31. Carly Norden, MS, 2018-2020
30. YounJi Nam, PhD, 2018-present
29. Rebecca Varney, PhD, 2018-2021
28. Shu Hui Lye, MS, 2017-2019
27. Jennifer Fortunato, PhD, 2017-present
26. Feng Kong, PhD, 2015-present
25. De'Anna Trunnell, MS, 2015-2017
24. Kiel Shuey, MS, 2015-2017
23. Silas Brown (chemistry), PhD, 2015-2019
22. Grace Scarsella, MS, 2014-2017
21. Riley Lovejoy, MS, 2014-2017
20. Sergei Bombin, MS/PhD, 2014-2017
19. Cheng-Yu Li, PhD, 2014 - 2018
18. Minli Xing (chemistry), PhD, 2014-2016
17. Chris Savell - Mississippi State University, MS, 2014-2016
16. Courtney Moore, na, 2014-2015
15. Jason Jackson, PhD, 2013-2019
14. Justin Ray, MS/PhD, 2013-2019
13. Tingwei Guo, PhD, 2013-2018
12. Reece Watson, MS, 2013-2015
11. Jose Knee - Laurentian University, Ontario, Canada, MS, 2013
10. Kristine Marson, MS, 2012-2016
9. Siqi Guan (chemistry), PhD, 2012-2016
8. Stephanie Robinson, MS, 2012-2014
7. Andrew Shahan, na, 2012-2013
6. Peter Scott, PhD, 2011-2016
5. Elizabeth Evans - Mississippi State University, MS, 2011-2014
4. Samantha Perkins, PhD, 2010-2016
3. Corrine George, PhD, 2010-2015
2. Sarah Duncan, PhD, 2010-2015
1. Shun Yan, PhD, 2010-2015

Teaching Experience and Training

- QUBES - Faculty Mentoring Network, RNAseq Lessons in the Classroom, Spring 2021
- Instructor, BSC 497, Introduction to Genomics Research, University of Alabama, Spring 2021
- Instructor, BSC 497, Mentoring: Diversity in Biology, University of Alabama, Fall 2018-Spring 2019
- Instructor, UH 105, Mentoring: Diversity in Biology, Honors College, University of Alabama, Fall 2017-Spring 2018
- Advisory Board member for the UA Teaching Hub, University of Alabama, Fall 2016-Spring 2019
- Faculty Fellow in Service Learning, University of Alabama, Fall 2016-Spring 2017
- Instructor, BSC 483/583, Evolution, Univ. Alabama, Spring 2013, Spring 2015, Fall 2016-18
- Instructor, BSC 442/542, Integrated Genomics, University of Alabama, Fall 2011-2014, Spring 2016-19, Spring 2021
- Instructor, BSC 385, Ecology and Evolution, Univ. Alabama, Fall 2015, Fall 2020
- Instructor, BSC 695, Gut Microbes Seminar, Univ, Alabama, Fall 2015
- Instructor, BSC 681, Topics in *Drosophila* Biology, Univ. Alabama, Fall 2012 - Fall 2015, Spring 2017, Fall 2017
- Instructor, BSC 602/605/606, Graduate Seminar, Univ. Alabama, Spring 2014

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Instructor, BSC 695, Population Genomics, Univ. Alabama, Fall 2012, Spring 2013
Project UNITED Community Engaged Academic Learner, College of Community Health Sciences, Univ. Alabama, 2013-2014
Instructor, BSC 695, *Drosophila* Seminar, Univ Alabama, Fall 2011, Spring 2012
Genome Education Partnership Short Course, Washington University, Summer 2011, Summer 2013, Summer 2014
Instructor, BSC 695, Evolutionary Genomics and Systems Biology, Univ Alabama, Spring 2011 & 2012
Learner Centered Teaching Workshop, Univ. Alabama, College of Arts and Sciences, Fall 2010
Guest Lecturer, GN 415 Genome Science, North Carolina State University, Spring 2008 and 2009
Attended Fundamentals of Teaching Workshop, Office of Postdoctoral Affairs, NCSU, Winter 2009
Discussion Section Instructor, Evolutionary Biology, University of Arizona, Spring 2005
Teaching Assistant, Genetics, University of Arizona, Fall 2004
Laboratory Instructor, Genetics Lab, University of Arizona, Fall 2000
Teaching Assistant, Pollination Biology, Univ. Oregon, Spring 2000
Teaching Assistant, Biology major core sequence, Univ. Oregon, Winter 1999 -Winter 2000

Departmental and Societal Service

Chair, Diversity, Equity, and Inclusion Committee, Biological Sciences, University of Alabama, Fall 2020-present
Faculty Assembly Committee, subcommittee chair, College of Arts and Sciences, University of Alabama, Fall 2019-present
Faculty Mentor, Dr. Kenneth Hoadley, Dept. Biological Sciences, University of Alabama, Fall 2019 – present
Faculty Mentor, Dr. Anathbandhu Chaudhuri, Dept. Biological Sciences, University of Alabama, Fall 2018 - present
Advisor, Tri Beta Biology Honor Society, Fall 2018-Summer 2019
Chair, Graduate Teaching Assistantship Committee, Fall 2018-Summer 2019
Southeastern Representative, FlyBoard, Nomination Committee, Spring 2018-Spring 2021
Chair, Macroevolution Search Committee, Univ. Alabama, Fall 2017-Spring 2018
Genomics Education Partnership, Director and PI, Fall 2017-present
Grant Panel Member, National Science Foundation, Fall 2017, Fall 2020
Institutional Animal Care and Use Committee, Faculty Senate representative, University of Alabama, Fall 2017- Summer 2019
Faculty Senator, Research and Service Committee, University of Alabama, Fall 2017 – Spring 2019
Co-Chair Evolution Working Group, University of Alabama, Summer 2017-Spring 2019
Genomics Education Partnership, Summer 2011-Summer 2017
Center for Community-based Partnerships Seed Grant Reviewer, Spring 2016-2017
Outreach Seminar, Tuscaloosa Civitan Club, February 2017
Outreach Seminar, Tuscaloosa Exchange Club, November 2016
Evolutionary Studies Minor Curriculum Committee, Fall 2016 - present
Microbiome Search Committee, Univ. Alabama, Fall 2016 – Fall 2017
Teach Hub Advisory Board, College of Arts and Sciences, University of Alabama, Fall 2016- Spring 2019
Diversity Committee of the College of Arts and Sciences, University of Alabama, August 2016-Spring 2019
"Nailing the Job Talk", Career Workshop leader/presenter, The Allied Genetics Conference, July 2016
Integrating Discovery-based Research into Undergraduate Education, workshop discussion facilitator, The Allied Genetics Conference, July 2016

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Graduate Admissions Committee, Univ. Alabama, Fall 2015- Fall 2017
TideTogether Faculty Mentor, Univ. Alabama, Fall 2014 - Spring 2016, 2020/2021
Middle School Science Educational Outreach, Tuscaloosa City Schools, Summer 2014 - Spring 2018
Associate Editor, *Ecology and Evolution*, Fall 2013 - present
Disease Ecology Search Committee, Univ. Alabama, Fall 2015 - Spring 2016
Institutional Diversity Steering Committee, Univ. Alabama, Fall 2014 - Spring 2016
Core Curriculum Teams for Genomics/Genetics and Ecology/Evolution, Dept. of Biol. Scie. Univ. Alabama Fall 2013- Fall 2015
Evolution Working Group, Univ. Alabama, Fall 2013 - present
Computation Biologist Search Committee, Dept. Biol. Sci., Univ Alabama, Spring 2012-Spring 2014
UA Safe Zone Training, University of Alabama, December 2012
Vision Committee, Dept. of Biol. Sci., Univ. Alabama, Fall 2012
Lab Coordinator Search Committee, Dept. Biol. Sci., Univ Alabama, Spring 2012
Grant Panel Member, National Science Foundation, Spring 2012
iPad Council, College of Arts and Sciences, Univ. Alabama, Fall 2011-Spring 2012
Graduate Committee, Dept. Biol. Sci., Univ. Alabama, Fall 2011-Fall 2012
Research Facilities Committee, Dept. Biol. Sci., Univ. Alabama, Fall 2011-Fall 2014
Associate Editor, *Frontiers in Genetics of Model Organisms*, Fall 2010 - Fall 2013
Computational Biologist Search Committee, Dept. Biol. Sci., Univ. Alabama, 2010-2011
Postdoctoral Departmental Representative, Genetics Dept., North Carolina State University, Fall 2009
Seminar Committee, Genetics Dept., North Carolina State University, Summer 2009 - 2010
Organizer Biology Postdoc Career Support Group, NCSU, Fall 2008-Spring 2009
Graduate Student Presentation Judge, Evolution Meeting, Minneapolis, MN, June 2008
Undergraduate Diversity Mentor, Evolution Meeting, Minneapolis, MN, June 2008
Organizer, Research Discussion, Genetics Grad Students/Post Docs, NCSU, Sp.2006-Fall 2007
Judge, DNA Essay Competition (9th-12th graders), Sponsored Amer. Soc. Human Genetics, Spring 2008
Organizer, *XX Discussion Group*, EEB female graduate students, Univ. Arizona, Fall 2004 – Spring 2005
Grad Student Rep, Dept. of Ecol. and Evolutionary Biology, Univ. Arizona, Spring 2003 – Spring 2004
Undergraduate Diversity Mentor, Evolution Meeting, Chico, CA June 2003
Judge for Pima County Junior High School Science Fair, Tucson, AZ Spring 2003
Graduate Student Big Sister, Dept. of Ecol. and Evol. Biology, Univ. of Arizona, Fall 2002-Spring 2006
External Grant Reviewer for *NSF*, *MRC2*, and *UAB-NORC*
Peer Reviewer for Journals including: *PLoS Genetics*, *PLoS One*, *G3*, *Genetics*, *Molecular Biology and Evolution*, *Current Pharmacogenomics and Personalized Medicine*, *Evolution*, *Heredity*, *Journal of Chromatography B*, *Metabolomics*, *Nature Genetics*, and *Molecular Ecology*.

Scientific Society Membership

Society for Molecular Biology and Evolution, 2021-present
Metabolomics Association of North America, 2017-present
International Metabolomics Society, 2013-present
Council on Undergraduate Research, 2011-present
American Association of University Women, 2010-present
American Society for Nutrition, 2009-2013
Genetics Society of America, 2005 - present
Society for the Study of Evolution, 2001- present