

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 disease (Metabolic Syndrome and Diabetes) using *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 of metabolic phenotypes.

Present Position

Assistant Professor, Department of Biological Sciences, University of Alabama, 8/10-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)

BS, Biology, Honors with Distinction Clark Honors College, *cum laude*, Univ. Oregon, 2000
(W.E. Bradshaw and C.M. Holzapfel, supervisors)

Scientific Employment/Fellowship History

Assistant Professor, University of Alabama, 8/10-present

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

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

Drosophila Research Ecosystem Meeting invited participant, Spring 2016
Model Organism Metabolomics Task Group invited member, International Metabolomics Society, Spring 2015 - present
International *Drosophila* Metabolomics Curation Consortium, Founder, Spring 2013 - present
Landscape Genomics, NIMBios invited working group member, 2014-present
Landscape Genomics, NESCent Catalysis meeting invited participant, Spring 2013
Genome Education Partnership, Sarah Elgin PI, Summer 2011-present

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 Support

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)
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), 8th percentile, (\$1,295,342)
Ruth L. Kirschstein National Research Service Awards (NIH-NRSA), Priority Score 136, 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 in Progress

(* indicates undergraduate co-authors)

Articles

2. K. Dew-Budd, R. Mathur, S. Roy, V. Oza, A. Adams*, S. Mendez*, A. Davidson, R. Che, K. Bray*, D. Davis*, M. Kieffer*, L. Leonard*, J. Hubickey*, C. Paiva*, N. Izor*, D. Nadella*, L. Ross*, X. Zeng, J. Merriam*, J. Jarnigan, A. Motsinger-Reif, **L.K. Reed**, "Mapping of dietary reaction norm loci for Metabolic Syndrome-like traits using the multi-parent *Drosophila* Synthetic Reference Population determines that main genetic effects are distinct from environment dependent plastic loci", *in prep for Genetics*
1. V. Oza and **L.K. Reed**, " Random forest analysis of untargeted metabolomics elucidates the role of diet and triglyceride storage in *Drosophila melanogaster* larvae", *in prep for Metabolomics*

Publications

(* indicates undergraduate co-authors, article links can be found at flyxe.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.) (*in press with Palgrave Macmillan*)

Articles and Book Chapters

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), 2016, "The GEP: Crowd-Sourcing Big Data Analysis with Undergraduates" *Trends in Genetics*, *in press*.
27. 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.
26. **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*. (*in press with Palgrave Macmillan*)
25. 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(46)
24. D.B. Lowry, S. Hoban, J.L. Kelley, K.E. Lotterhos, **L.K. Reed**, M.F. Antolin, A. Storfer, 2016,

Breaking RAD: The utility of restriction site associated DNA sequencing for genome scans of adaptation" *Molecular Ecology Resources* 10.1111/1755-0998.12596

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* 10.1002/ece3.2452
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.* 2016. Vol. 188, pp. 000–000 , 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. Leung, W, 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, 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. Markow, T.A., **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.
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

(Inter)national Conference Oral Presentations (* indicates undergraduate co-authors)

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)

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

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)

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

March 2016 University of Alabama

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*"
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

11. Department of Biology, 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 - present, University of Alabama
Award: Metabolomics Society Early Career Travel Award, 2016

Research Mentorship of Graduate Students

9. Daryll Spangler (MS, anthropology), Fall 2016 - present, University of Alabama
8. Kelsey Lowman (MS - University Scholar), Fall 2016 - present, University of Alabama
7. Andrei Bombin (PhD), Spring 2016-present, University of Alabama
6. Vishal Oza (PhD), Fall 2014 - present, University of Alabama
Award: Metabolomics Society Early Career Travel Award, 2015
5. Andrei Bombin, Masters 2015, University of Alabama
Present position: PhD program, Biological Sciences, University of Alabama
4. Ayse Cigdem Tunckanant, Masters 2015, University of Alabama

3. Joseph Aicher, Masters (mathematics) 2015, University Scholar, University of Alabama
Present position: MD/PhD program, University of Pennsylvania Medical School
2. Kelly Dew-Budd, Masters 2014, University of Alabama
Present position: PhD program, Plant Sciences, University of Arizona
1. Xiangpei Zeng, Fall 2011-Spring 2012, University of Alabama
Present position: PhD Program University of North Texas Health Science Center

Research Mentorship of Undergraduate Students

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

58. Katie Sandlin, Spring 2017 - present, University of Alabama
57. Owen Cunneely, Spring 2017 - present, University of Alabama
56. Maegan McCane[#], Fall 2016 - present, University of Alabama
55. Malik Seals[#], Fall 2016 - present, University of Alabama
54. Carson Foster, Summer 2016 - present, University of Alabama
53. Logan Griffin, Summer 2016 - present, University of Alabama
52. Brandon Moye, Spring 2016 - present, University of Alabama
51. Daryll Spangler, Fall 2015-Spring 2016, B.S. 2016 University of Alabama - first generation college student
Present position: Masters Program in Anthropology, University of Alabama
Award: Honorable Mention Natural Sciences Oral Presentation - 2016 Undergraduate Research Conference, University of Alabama
50. Whitney Beavers, Fall 2015 - present, University of Alabama
49. Brelahn Wyatt[#], Fall 2015 - present, University of Alabama
48. Will Freeman, Fall 2015 - Spring 2016, Computer-Based Honors, University of Alabama
47. Andrew Schwitzgebel, Fall 2015 - Spring 2016, Computer-Based Honors, University of Alabama
46. Olivia Sorrell[#], Spring 2015 - present, University of Alabama
45. Zavier Mason[#], Spring 2015 - present, University of Alabama,
Award: Honorable Mention Natural Sciences Poster - 2016 Undergraduate Research Conference, University of Alabama
44. Beau Schaeffer, Spring 2015 - present, University of Alabama,
Award: Arts and Sciences UCRA grant
43. Timothy (Nelson) Brown, Spring 2015 - present, University of Alabama
42. Kara MacIntyre, Spring 2015 - present, University of Alabama, University Scholar
41. Kelsey Lowman, Spring 2015 - present, University of Alabama,
Award: Arts & Sciences UCRA grant
40. Laura Mafla[#], Spring 2015 - present, University of Alabama
39. Preston Hinkel, Fall 2014 - Spring 2016, Computer-Based Honors, University of Alabama
38. Trevor Hearing, Fall 2014-Spring 2015, University of Alabama
37. Levi Miller, Summer 2014 - Spring 2016, Honors B.S. 2016, University of Alabama
36. Andrew Davis, Spring 2014 - Spring 2016, Honors B.S. 2016, University of Alabama
Present position: 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
Present position: University of Michigan Medical School
Awards: Arts & Sciences UCRA grant
34. Leigh Ann Pouncey, Spring 2014 - Summer 2014, B.S. 2014, University of Alabama

33. John Henderson*, Fall 2013 - Spring 2016, Honors B.S. 2016 University of Alabama
Present position: PhD UAB Biomedical Engineering
32. Meredith Owens, Fall 2013 - Fall 2015, B.S. 2016, University of Alabama
31. Rachel Hill, Fall 2013- Fall 2015, B.S. Honors 2016, University of Alabama
Present Position: Masters of Health Administration, Virginia Commonwealth University
30. Jaron Nix*, Fall 2013 - Spring 2016, Honors B.S. 2016, University of Alabama
Present Position: 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
Present Position: UAB Medical School
Award: HHMI Research Fellow 2014, University of Alabama
28. Ruth Bishop*, Spring 2013 - Fall 2015, Honors B.S. 2016
Present Position: STEM to the MBA, University of Alabama
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
26. Alison Adams*, Fall 2012 - Summer 2015, Honors B.S. 2015
Present position: 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,
Present position: 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
Present Position: 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
Present position: Research Specialist University of Chicago
Award: HHMI Research Fellow - 2013, University of Alabama
22. Leah Leonard, Fall 2011-Spring 2014, Honors B.S. 2014
Present position: 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
Present position: 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
Present position: 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
Present position: M.D. student, UAB Medical School
17. Dana Davis, Spring 2011- Summer 2013, Honors B.S. 2013, University of Alabama - first-generation college student

- Present position: University of Central Florida, Biology Master's Program
16. Divya Nadella, Fall 2010-Summer 2013, Honors B.S. 2013, University of Alabama
Present Position: M.D. Student, University of South Alabama
 15. Lauren Ross Perkins, Summer 2011-Spring 2012, post-baccalaureate, University of Alabama
Present position: Registered Nurse, Marshal Medical Centers, Guntersville, AL
 14. Katie Bray, Spring 2011-Summer 2012, B.S. 2012, University of Alabama
Present position: 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 Project
M.D. student, Emory University School of Medicine
Present Position: Brookwood Baptist Health, Intern, Birmingham, AL
 11. Taylor Scruggs, Fall 2010-Spring 2011, B.S. 2011 University of Alabama, Computer Based Honors Project
M.D. student, Mississippi University School of Medicine
Present Position: 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
Masters of Science in Biological Sciences, 2014 University of Alabama
Present position: PhD Student, Department of Plant Sciences, University of Arizona
 8. Stephanie Williams*, Spring 2007-Spring 2010, Honors B.S. 2010, North Carolina State University
Present position: 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
Present Position: 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
 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
 3. Mastafa Springston, Summer 2007-Spring 2008, Honors B.S. 2008 North Carolina State University
M.D. student, Univ. of North Carolina School of Medicine
Present Position: 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.
Ph.D., Dept. of Genetics Cornell University
Present position: Associate Editor Nature Genetics
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.
Present position: Associate Vet, VCA Bay Area Veterinary Specialists & Emergency Hospital

D.M.V., Cornell University College of Veterinary Medicine

Graduate Student Committees

26. Feng Kong, PhD, 2015-present
25. De'Anna Trunnell, MS, 2015-present
24. Kiel Shuey, MS, 2015-present
23. Silas Brown (chemistry), PhD, 2015-present
22. Grace Scarsella, MS, 2014-present
21. Riley Lovejoy, MS, 2014-present
20. Sergei Bombin, MS/PhD, 2014-present
19. Cheng-Yu Li, PhD, 2014 - present
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-present
14. Justin Ray, MS/PhD, 2013-present
13. Tingwei Guo, PhD, 2013-present
12. Reece Watson, MS, 2013-2015
11. Jose Knee - Laurentian University, Ontario, Canada, MS, 2013
10. Kristine Marson, MS, 2012-present
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

Advisory Board member for the UA Teaching Hub, University of Alabama, Fall 2016-present
Faculty Fellow in Service Learning, University of Alabama, Fall 2016-present
Instructor, BSC 483/583, Evolution, Univ. Alabama, Spring 2013, Spring 2015, Fall 2016
Instructor, BSC 442/542, Integrated Genomics, University of Alabama, Fall 2011-2014, Spring 2016
Instructor, BSC 385, Ecology and Evolution, Univ. Alabama, Fall 2015
Instructor, BSC 695, Gut Microbes Seminar, Univ. Alabama, Fall 2015
Instructor, BSC 681, Topics in *Drosophila* Biology, Univ. Alabama, Fall 2012 - Fall 2015
Instructor, BSC 602/605/606, Graduate Seminar, Univ. Alabama, Spring 2014
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

Evolutionary Studies Minor Curriculum Committee, Fall 2016 - present
Microbiome Search Committee, Univ. Alabama, Fall 2016 - present
Teach Hub Advisory Board, College of Arts and Sciences, University of Alabama, August 2016- present
Diversity Committee of the College of Arts and Sciences, University of Alabama, August 2016-present
"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
Graduate Admissions Committee, Univ. Alabama, Fall 2015- present
TideTogether Faculty Mentor, Univ. Alabama, Fall 2014 - Spring 2016
Middle School Science Educational Outreach, Tuscaloosa City Schools, Summer 2014 - present
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*

CV: Laura K. Reed

Evolution, Current Pharmacogenomics and Personalized Medicine, Evolution, Heredity, Journal of Chromatography B, Metabolomics, Nature Genetics, and Molecular Ecology.

Scientific Society Membership

International Metabolomics Society, 2013-present

American Society for Nutrition, 2009-2013

Genetics Society of America, 2005 - present

Society for the Study of Evolution, 2001- present

References

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Dr. Greg Gibson, (Postdoc Advisor) School of Biology, 310 Ferst Dr., Georgia Institute of Technology,
Atlanta, GA 30332. Phone: 404-894-3700 Email: ggibson.gt@gmail.com

Dr. Ryan Earley, (colleague) Dept. of Biological Sciences, P.O. Box 870344, University of Alabama,
Tuscaloosa, AL 35487. Phone: 205-348-1827, Email: rlearley@ua.edu

Dr. Arthur Edison, Departments of Genetics and Biochemistry & Molecular Biology, B122 Life
Sciences Bldg., University of Georgia, Athens, GA 30602, Phone: 706-542-8156, Email:
aedison@uga.edu