

Current Address

Florida State University
College of Arts and Sciences
Department of Biological Science
4019 King Life Sciences Building
319 Stadium Dr.
Tallahassee, FL 32306-4295
drokyta@bio.fsu.edu
<https://drokyta.com>
Office: (850) 645-8812
Lab: (850) 645-8817

Education and Experience

- 2014– Associate Professor, Department of Biological Science, Florida State University; Ecology and Evolution group and Cellular and Molecular Biology group
- 2008–2014 Assistant Professor, Department of Biological Science, Florida State University; Ecology and Evolution group and Cellular and Molecular Biology group
- 2014– Graduate Faculty Scholar in the College of Graduate Studies, University of Central Florida
- 2013– Affiliated faculty, Department of Chemistry and Biochemistry, Florida State University
- 2006–2008 Postdoctoral researcher with Holly A. Wichman (Department of Biological Sciences) and Paul Joyce (Departments of Mathematics and Statistics), University of Idaho
- 2000–2006 Ph.D. in Bioinformatics and Computational Biology with Holly A. Wichman, University of Idaho
- 2000 Research Assistant for James J. Bull, Department of Integrative Biology, University of Texas at Austin
- 1995–1999 B.S. in Zoology, University of Texas at Austin

Grants and Awards

- 2016–2021 National Science Foundation grant (NSF DEB 1638902) entitled “Collaborative Research: Dimensions US-BIOTA-São Paulo: Scales of Biodiversity – Integrated Studies of Snake Venom Evolution and Function Across Multiple Levels of Diversity” in the amount of \$842,937 (\$4,000,000 total across all CoPIs; other CoPIs: H. Lisle Gibbs at Ohio State University, Christopher L. Parkinson at Clemson University, Inácio de L. M. Junqueira-de-Azevedo, Ana M. Moura da Silva, and Erika Hingst-Zaher at the Instituto Butantan, and Hussam Zaher at the University of São Paulo)

- 2012–2018 National Institutes of Health, National Institute of General Medical Sciences grant (NIH R01GM099723) entitled “Pleiotropy, Epistasis, and the Biophysical Adaptation of ssDNA Bacteriophages” in the amount of \$1,041,115
- 2015–2016 Florida State University Council on Research and Creativity Planning Grant entitled “Centipede Venomics and the Experimental Evolution of Resistance” in the amount of \$13,000
- 2012–2016 National Science Foundation grant (NSF DEB 1145987) entitled “Snake Venom Genomics and Evolution” in the amount of \$900,000 (CoPIs: Alan and Emily Lemmon at Florida State University)
- 2011 Florida State University Equipment and Infrastructure Enhancement Grant (EIEG) entitled “MiSeq High-Throughput Sequencer for Integrative Genome-Scale Research” in the amount of \$75,000 (CoPIs: David Gilbert, Kimberly Hughes, Don Levitan, and Alan Lemmon at Florida State University)
- 2009 First Year Assistant Professor (FYAP) Award from the Council on Research and Creativity at Florida State University for 2008–2009 in the amount of \$17,000
- 2006 Diane A. Haynes Memorial Award to the outstanding graduate student for 2005–2006 in the College of Science, University of Idaho
- 2005 Alumni Award for Excellence from the University of Idaho Alumni Association

Publications

51. Margres MJ, Patton A, Wray KP, Hassinger ATB, Ward MJ, Lemmon EM, Lemmon AR, **Rokyta DR**. In press. Tipping the scales: the migration-selection balance leans toward selection in snake venoms. *Molecular Biology and Evolution*.
50. Hofmann EP, Rautsaw RM, Strickland JL, Holding ML, Hogan MP, Mason AJ, **Rokyta DR**, Parkinson CL. In press. Comparative venom-gland transcriptomics and venom proteomics of four Sidewinder Rattlesnake lineages (*Crotalus cerastes*) reveal little differential expression despite individual variation. *Scientific Reports*.
49. Dashevsky D, Debono J, **Rokyta DR**, Nouwens A, Josh P, Fry BG. In press. Three-finger toxin diversification in the venoms of cat-eye snakes (Colubridae: *Boiga*). *Journal of Molecular Evolution*.
48. Holding ML, Margres MJ, **Rokyta DR**, Gibbs HL. In press. Local prey community composition and genetic distance predict venom divergence among populations of the northern Pacific rattlesnake (*Crotalus oreganus*). *Journal of Evolutionary Biology*.
47. Ward MJ, **Rokyta DR**. 2018. Venom-gland transcriptomics and venom proteomics of the giant Florida blue centipede, *Scolopendra viridis*. *Toxicon* 152: 121–136.
46. Ward MJ, Ellsworth SA, Hogan MP, Nystrom GS, Martinez P, Budheo A, Zelaya R, Perez A, Powell B, He H, **Rokyta DR**. 2018. Female-biased population divergence in the venom of the Hentz striped scorpion (*Centruroides hentzi*). *Toxicon* 152: 137–149.
45. Calvete JJ, Casewell NR, Hernández-Guzmán U, Quesada-Bernat S, Sanz L, **Rokyta DR**, Storey D, Albuлесcu L-O, Wüster W, Smith CF, Schuett GW, Booth W. 2018. Venom complexity in a pitviper produced by facultative parthenogenesis. *Scientific Reports* 8: 11539.

44. Holding ML, Margres MJ, Mason AJ, Parkinson CL, **Rokyta DR**. 2018. Evaluating the performance of *de novo* assembly methods for venom-gland transcriptomics. *Toxins* 10(6): 249.
43. Amazonas D, Portes-Junior J, Nishiyama-Jr M, Nicolau C, Chalkidis H, Mourão R, **Rokyta DR**, Valente R, Junqueira-de-Azevedo I, Moura-da-Silva AM. 2018. Molecular mechanisms underlying intraspecific variation in snake venom. *Journal of Proteomics* 181: 60–72.
42. Strickland JL, Mason AJ, **Rokyta DR**, Parkinson CL. 2018. Phenotypic variation in Mojave Rattlesnake (*Crotalus scutulatus*) venom is driven by four toxin families. *Toxins* 10(4): 135.
41. Whittington AC, Mason AJ, **Rokyta DR**. 2018. A single mutation unlocks cascading exaptations in the origin of a potent pitviper neurotoxin. *Molecular Biology and Evolution* 35(4): 887–898.
40. Sackman AM, **Rokyta DR**. 2018. Additive phenotypes underlie epistasis of fitness effects. *Genetics* 208: 339–348.
39. Ward MJ, Ellsworth SA, **Rokyta DR**. 2018. Venom-gland transcriptomics and venom proteomics of the Hentz striped scorpion (*Centruroides hentzi*; Buthidae) reveal high toxin diversity in a harmless member of a lethal family. *Toxicon* 142: 14–29.
38. Margres MJ, Wray KP, Hassinger ATB, Ward MJ, McGivern JJ, Lemmon EM, Lemmon AR, **Rokyta DR**. 2017. Quantity, not quality: rapid adaptation in a polygenic trait proceeded exclusively through expression differentiation. *Molecular Biology and Evolution* 34: 3099–3110.
37. Sackman AM, McGee LW, Morrison AJ, Pierce J, Anisman J, Hamilton H, Sanderbeck S, Newman C, **Rokyta DR**. 2017. Mutation-driven parallel evolution during viral adaptation. *Molecular Biology and Evolution* 34: 3243–3253.
36. Margres MJ, Bigelow AT, Lemmon EM, Lemmon AR, **Rokyta DR**. 2017. Selection to increase expression, not sequence diversity, precedes gene family origin and expansion in rattlesnake venom. *Genetics* 206: 1569–1580.
35. **Rokyta DR**, Margres MJ, Ward MJ, Sánchez EE. 2017. The genetics of venom ontogeny in the eastern diamondback rattlesnake (*Crotalus adamanteus*). *PeerJ* 5: e3249.
34. **Rokyta DR**, Ward MJ. 2017. Venom-gland transcriptomics and venom proteomics of the black-back scorpion (*Hadruus spadix*) reveal detectability challenges and an unexplored realm of animal toxin diversity. *Toxicon* 128: 23–37.
33. Pearson VM, Caudle SB, **Rokyta DR**. 2016. Viral recombination blurs taxonomic lines: examination of single-stranded DNA viruses in a wastewater treatment plant. *PeerJ* 4: e2585.
32. Margres MJ, Walls R, Suntravat M, Lucena S, Sánchez EE, **Rokyta DR**. 2016. Functional characterizations of venom phenotypes in the eastern diamondback rattlesnake (*Crotalus adamanteus*) and evidence for expression-driven divergence in toxic activities among populations. *Toxicon* 119: 28–38.
31. McGee LW, Sackman A, Morrison AJ, Pierce J, Anisman J, **Rokyta DR**. 2016. Synergistic pleiotropy overrides the costs of complexity in viral adaptation. *Genetics* 202: 285–295.
30. Margres MJ, Wray KP, Seavy M, McGivern JJ, Herrera ND, **Rokyta DR**. 2016. Expression differentiation is constrained to low-expression proteins over ecological timescales. *Genetics* 202: 273–283.
29. Sackman AM, Reed D, **Rokyta DR**. 2015. Intergenic incompatibilities reduce fitness in hybrids of extremely closely related bacteriophages. *PeerJ* 3: e1320.
28. **Rokyta DR**, Margres MJ, Calvin K. 2015. Post-transcriptional mechanisms contribute little to phenotypic variation in snake venoms. *G3: Genes/Genomes/Genetics* 5: 2375–2382.

27. Wray KP, Ward M, **Rokyta DR**. 2015. The establishment of the exotic centipede *Rhysida longipes longipes* (Newport, 1845; Scolopendramorpha: Scolopendridae: Otostigminae) in south Florida. *Florida Entomologist* 98: 979–980.
26. Margres MJ, Wray KP, Seavy M, McGivern JJ, Sanader D, **Rokyta DR**. 2015. Phenotypic integration in the feeding system of the eastern diamondback rattlesnake (*Crotalus adamanteus*). *Molecular Ecology* 24: 3405–3420.
25. **Rokyta DR**, Wray KP, McGivern JJ, Margres MJ. 2015. The transcriptomic and proteomic basis for the evolution of a novel venom phenotype within the Timber Rattlesnake (*Crotalus horridus*). *Toxicon* 98: 34–48.
24. Wray KP, Margres MJ, Seavy M, **Rokyta DR**. 2015. Early significant ontogenetic changes in snake venoms. *Toxicon* 96: 74–81.
23. Margres MJ, McGivern JJ, Seavy M, Wray KP, Facente J, **Rokyta DR**. 2015. Contrasting modes and tempos of venom expression evolution in two snake species. *Genetics* 199: 165–176.
22. McGivern JJ, Wray KP, Margres MJ, Couch ME, Mackessy SP, **Rokyta DR**. 2014. RNA-seq and high-definition mass spectrometry reveal the complex and divergent venoms of two rear-fanged colubrid snakes. *BMC Genomics* 15: 1061.
21. McGee LW, Aitchison EW, Caudle SB, Morrison AJ, Zheng L, Yang W, **Rokyta DR**. 2014. Payoffs, not tradeoffs, in the adaptation of a virus to ostensibly conflicting selective pressures. *PLOS Genetics* 10: e1004611.
20. Caudle SB, Miller CR, **Rokyta DR**. 2014. Environment determines epistatic patterns for a ssDNA virus. *Genetics* 196: 267–279.
19. Margres MJ, McGivern JJ, Wray KP, Seavy M, Calvin K, **Rokyta DR**. 2014. Linking the transcriptome and proteome to characterize the venom of the eastern diamondback rattlesnake (*Crotalus adamanteus*). *Journal of Proteomics* 96C: 145–158.
18. Sackman AM, **Rokyta DR**. 2013. The adaptive potential of hybridization demonstrated with bacteriophages. *Journal of Molecular Evolution* 77: 221–230.
17. Margres MJ, Aronow K, Loyacano J, **Rokyta DR**. 2013. The venom-gland transcriptome of the eastern coral snake (*Micrurus fulvius*) reveals high venom complexity in the intragenomic evolution of venoms. *BMC Genomics* 14: 531.
16. **Rokyta DR**, Wray KP, Margres MJ. 2013. The genesis of an exceptionally lethal venom in the timber rattlesnake (*Crotalus horridus*) revealed through comparative venom-gland transcriptomics. *BMC Genomics* 14: 394.
15. Castoe TA, Braun EL, Bronikowski AM, Cox CL, Davis Rabosky AR, de Koning APJ, Dobry J, Fujita MK, Giorgianni MW, Hargreaves A, Henkel CV, Mackessy SP, O’Meally D, **Rokyta DR**, Secor SM, Streicher JW, Wray KP, Yokoyama KD, Pollock DD. 2012. Meeting report from the first snake genomics and integrative biology meeting. *Standards in Genomic Sciences* 7: 1.
14. Pearson VM, Miller CR, **Rokyta DR**. 2012. The consistency of beneficial fitness effects of mutations across diverse genetic backgrounds. *PLOS One* 7: e43864.
13. **Rokyta DR**, Lemmon AR, Margres MJ, Aronow K. 2012. The venom-gland transcriptome of the eastern diamondback rattlesnake (*Crotalus adamanteus*). *BMC Genomics* 13: 312.

12. **Rokyta DR**, Joyce P, Caudle SB, Miller C, Beisel CJ, Wichman HA. 2011. Epistasis between beneficial mutations and the phenotype-to-fitness map for a ssDNA virus. *PLOS Genetics* 7: e1002075.
11. **Rokyta DR**, Wray KP, Lemmon AR, Moriarty Lemmon EC, Caudle SB. 2011. A high-throughput venom-gland transcriptome for the eastern diamondback rattlesnake (*Crotalus adamanteus*) and evidence for pervasive positive selection across toxin classes. *Toxicon* 57: 657–671.
10. **Rokyta DR**, Wichman HA. 2009. Genic incompatibilities in two hybrid bacteriophages. *Molecular Biology and Evolution* 26: 2831–2839.
9. **Rokyta DR**, Abdo Z, Wichman HA. 2009. The genetics of adaptation for eight microvirid bacteriophages. *Journal of Molecular Evolution* 69: 229–239.
8. Joyce P, **Rokyta DR**, Beisel CJ, Orr HA. 2008. A general extreme value theory model for the adaptation of DNA sequences under strong selection and weak mutation. *Genetics* 180: 1627–1643.
7. **Rokyta DR**, Beisel CJ, Joyce P, Ferris MT, Burch CL, Wichman HA. 2008. Beneficial fitness effects are not exponential for two viruses. *Journal of Molecular Evolution* 67: 368–376.
6. Beisel CJ, **Rokyta DR**, Wichman HA, Joyce P. 2007. Testing the extreme value domain of attraction for distributions of beneficial fitness effects. *Genetics* 176: 2441–2449.
5. **Rokyta DR**, Beisel CJ, Joyce P. 2006. Properties of adaptive walks on uncorrelated landscapes under strong selection and weak mutation. *Journal of Theoretical Biology* 243: 114–120.
4. **Rokyta DR**, Burch CL, Caudle SB, Wichman HA. 2006. Horizontal gene transfer and the evolution of microvirid coliphage genomes. *Journal of Bacteriology* 188: 1134–1142.
3. **Rokyta DR**, Joyce P, Caudle SB, Wichman HA. 2005. An empirical test of the mutational landscape model of adaptation using a single-stranded DNA virus. *Nature Genetics* 37: 441–444.
2. Bull JJ, Badgett MR, **Rokyta D**, Molineux IJ. 2003. Experimental evolution yields hundreds of mutations in a functional viral genome. *Journal of Molecular Evolution* 57: 241–248.
1. **Rokyta D**, Badgett MR, Molineux IJ, Bull JJ. 2002. Experimental genomic evolution: extensive compensation for loss of DNA ligase activity in a virus. *Molecular Biology and Evolution* 19: 230–238.

Manuscripts Submitted or In Preparation

1. Sackman AM, **Rokyta DR**. No cost of complexity in bacteriophages adapting to a complex environment. Submitted to *Genetics*.
2. Whittington AC, **Rokyta DR**. Biophysical spandrels form a hot-spot for kosmotropic mutations in bacteriophage thermal adaptation. Submitted to *Journal of Molecular Evolution*.
3. Strickland JL, Smith CF, Mason AJ, Schield DR, Borja M, Castañeda-Gaytán G, Spencer CL, Smith LL, Trápaga A, Bouzid MM, Campillo-García G, Flores-Villela OA, Antonio-Rangel D, Mackessy SP, Castoe TA, **Rokyta DR**, and Parkinson CL. Evidence for divergent patterns of local selection driving venom variation in Mojave Rattlesnakes (*Crotalus scutulatus*). Submitted to *Scientific Reports*.
4. Ellsworth SA, Nystrom GS, Hogan MP, Ward MJ, **Rokyta DR**. Convergent recruitment of adamalysin-like metalloproteases in the red bark centipede (*Scolopocryptops sexspinosus*). In preparation.
5. Nystrom GS, Ellsworth SA, Ward MJ, **Rokyta DR**. Venom-gland transcriptomics and venom proteomics of the Florida green centipede, *Hemiscolopendra marginata*, reveal a sex-based variation in centipede venom. In preparation.
6. **Rokyta DR**, Margres MJ, Ward MJ, Bigelow AT, Sánchez EE. Sequence variation in the venom genes of the eastern diamondback rattlesnake (*Crotalus adamanteus*). In preparation.

7. Wray KP, Sanader D, Margres MJ, **Rokyta DR**. Venom-associated divergence among timber rattlesnake (*Crotalus horridus*) populations. In preparation.

Presentations

- 2018 Okinawa Institute of Science and Technology (OIST), Okinawa, JP: Invited talk
 2018 Venom Week VI, Texas A&M University-Kingsville, Kingsville, TX: Invited keynote talk
 2017 Instituto Butantan, São Paulo, BZ: Invited talk
 2017 XIV Congress of the Brazilian Society of Toxinology, Florianopolis, BZ: Invited plenary lecture
 2017 Florida State University College of Medicine Translational Science Laboratory: Invited talk
 2016 Institute for Bioinformatics and Evolutionary Studies at the University of Idaho, Moscow, ID: Invited talk
 2014 Society for the Study of Evolution Meeting, Raleigh, NC: Talk
 2014 Biology of the Pitvipers 2 Symposium, Tulsa, OK: Talk
 2014 Life Sciences Symposium at Florida State University, Tallahassee, FL: Invited talk
 2013 Department of Chemistry and Biochemistry at Florida State University, Tallahassee, FL: Invited talk
 2013 Department of Biology at the University of Central Florida, Orlando, FL: Invited talk
 2013 Department of Biology at the University of Mississippi, Oxford, MS: Invited talk
 2012 Department of Biological Science at Florida State University, Tallahassee, FL: Talk
 2012 Department of Evolution, Ecology, and Organismal Biology at Ohio State University, Columbus, OH: Invited talk
 2012 17th World Congress of the International Society on Toxinology, Honolulu, HA: Invited talk
 2011 Snake Genomics and Integrative Biology Meeting, Vail, CO: Talk
 2009 Gordon Research Conference on Microbial Population Biology, Proctor Academy, NH: Invited talk
 2009 Society for the Study of Evolution Meeting, Moscow, ID: Talk
 2008 Department of Biological Science at Florida State University, Tallahassee, FL: Invited talk
 2007 NIGMS Ecology and Evolution of Infectious Diseases PI Meeting, Albuquerque, NM: Talk
 2007 ASM General Meeting, Toronto, Ontario: Invited talk
 2006 NIH IDeA Symposium, Washington, DC: Poster
 2005 Gordon Research Conference on Microbial Population Biology, Proctor Academy, NH: Poster
 2004 BRIN Conference, Pocatello, ID: Talk
 2004 Society for the Study of Evolution Meeting, Ft. Collins, CO: Talk
 2003 Society for the Study of Evolution Meeting, Chico, CA: Talk
 2002 Society for the Study of Evolution Meeting, Champaign, IL: Poster

Teaching at Florida State University

2018	Spring	PCB 4674	Evolution
2017	Fall	MCB 4502/5505	Virology
2016	Fall	PCB 3063	General Genetics
2016	Spring	PCB 4674	Evolution
2015	Fall	PCB 3063	General Genetics
2014	Fall	BSC 4933	Virology
2014	Spring	PCB 4674	Evolution
2013	Fall	BSC 4933	Virology
2012	Fall	BSC 4933	Virology
2011	Fall	BSC 4933	Virology
2010	Fall	PCB 4674	Evolution
2010	Spring	PCB 4674	Evolution
2009	Fall	PCB 4674	Evolution

Postdoctoral Supervision

2018–	Matthew L. Holding	National Science Foundation Postdoctoral Research Fellow
2018–	Timothy J. Colston	Snake venom evolution
2015–2018	A. Carl Whittington	Viral experimental evolution
2013–2015	Kenneth P. Wray	Snake venom evolution
2013–2015	Lindsey Willett-McGee	Viral experimental evolution

Graduate Students

2018–	Kylie Lawrence	Evolution and Ecology program	Ph.D. track
2017–	Gunnar Nystrom	Evolution and Ecology program	Ph.D. track
2017–	Schlyer Ellsworth	Evolution and Ecology program	Ph.D. track
2016–	Michael Hogan	Evolution and Ecology program	Ph.D. track
2014–	Micaiah Ward	Cellular and Molecular Biology program	Ph.D. candidate
2010–2017	Victoria M. Pearson	Cellular and Molecular Biology program	Ph.D.
2010–2017	Andrew M. Sackman	Evolution and Ecology program	Ph.D.
2011–2016	Mark J. Margres	Evolution and Ecology program	Ph.D.
2013–2014	Karalyn Aronow	Evolution and Ecology program	M.S.

Graduate Advisory Committees

- Michael Conry, Florida State University, Scientific Computing program
- Joshua Santiago, Florida State University, Molecular Biophysics program; University representative
- Mysia Dye, Florida State University, Ecology and Evolution program
- Shirin Kamalaldin, Florida State University, Molecular Biophysics program
- Zachary Turpin, Florida State University, Cellular and Molecular Biology Program
- Jason Lynn, Florida State University, Cellular and Molecular Biology Program
- Jennifer Valvo, Florida State University, Ecology and Evolution program
- Jason Strickland, University of Central Florida; Ph.D. 2018
- Tsz Kin (Martin) Tsui, Florida State University, Molecular Biophysics program
- Clemens Lakner, Florida State University, Ecology and Evolution program; Ph.D. 2011
- Donald Griffin, Florida State University, Ecology and Evolution program
- Miles Bradshaw, Florida State University, Cellular and Molecular Biology program; Ph.D. 2015
- Andrzej Wojtowicz, University of Idaho, Bioinformatics and Computational Biology program; M.S. 2011

Undergraduate Research

Training of undergraduate students at Florida State University:

- Jeremy Anisman (2012–2013)*
- Karalyn Aronow (2010–2011; Honors Thesis)*
- Rebecca Ashton (2010)
- Alyssa Bigelow (2014–2017)*
- Amisha Budhdeo (2016–2016)*
- Michelle Couch (2013)*
- Tami Fletcher (2011)
- Lucy Fry (2018–)
- Simone Gable (2017–)
- Blake Guillory (2010)
- Hunter Hamilton (2015–2016)*
- William Hubbard (2010)
- Naed Ivelisse Gonzales Centen (2012)
- John Jones (2014)
- Bernie Kloppenberg (2011)
- Laura Koffinas (2017–; Women in Math Science and Engineering program)
- Diana Lacatusu (2015–2017; Women in Math Science and Engineering program)
- Ellen Lovelace (2016–2017)

- Jacob Loyacano (2012)*
- Sierra Magurczek (2016)
- Lauren Maquet (2016–)
- Melanie Marshall (2009–2010)
- Paul Martinez (2016–)*
- Daniel McGinnis (2013)
- Anneliese Morrison (2011–2015; Honors Thesis)*
- Cayla Newman (2014–2016)*
- Samuel Nicholson (2014)
- Alex Oliver (2018–)
- Joseph Pelt (2015)
- Alexander Perez (2016–2017)*
- Jessica Pierce (2012–2014)*
- Barclay Powell (2016)*
- Danielle Reed (2009–2010)*
- Brooke Sabin (2018–)
- Dragana Sanader (2013–2015)*
- Stephanie Sanderbeck (2013–2016)*
- Rachel Saul (2017–)
- Jordan Sirosky (2011)
- Alyssa Skehan (2015)
- Bryan Velasco (2016–)
- Elizabeth Vandervort (2017–)
- Gabrielle Yap-Sam (2016–2017)
- Roxana Zelaya (2016–2017)*

*Co-author on one or more publications

Young Scholars Program

Training of high-school students in the Young Scholars Program at Florida State University in a six-week research internship:

- Chloe Choi (2018)
- Isabella Hood (2018)
- Alexandra Akins (2017)
- Cynthia Wang (2017)
- Julia Schindler (2015)
- Brandon Callegari (2015)
- Aaliyah Triumph (2014)
- Gabriela Berner (2014)
- Preksha Bhagchandani (2013)
- Ayomide Fatunde (2013)
- Jonathan Galka (2013)
- Sarah Nguyentran (2013)
- Radhika Gupta (2011)
- Madison Spahn (2011)
- Amanda Langston (2011)

Service at Florida State University

- 2018–2019 Evolutionary Theorist Search Committee, Department of Biological Science
- 2018–2019 Chair of the FSU Academic Honor Policy Appeals Committee
- 2018–2020 Faculty Senator for the Department of Biological Science
- 2018– IDEA Grant Selection Committee, Center for Undergraduate Research and Academic Engagement
- 2018 Molecular Core Search Committee, Department of Biological Science
- 2017– Vice Chair of the Animal Research Advisory Committee
- 2014–2015 Ecology and Evolution Area Director, Department of Biological Science
- 2014–2016 Cellular and Molecular Biology Graduate Admissions Committee, Department of Biological Science
- 2014–2015 Elections Committee, Department of Biological Science
- 2014 Faculty Evaluation Committee, Department of Biological Science
- 2013 Ecological and evolutionary theory search committee, Department of Biological Science
- 2012–2013 Elections committee, Department of Biological Science
- 2008– Integrating genotype and phenotype cluster hire search committee, Department of Biological Science
- 2011–2012 Ecology and Evolution seminar series organizer, Department of Biological Science
- 2010– Computational biology major committee, Department of Biological Science

2010–2011 Executive committee, Department of Biological Science
2009–2010 Elections committee, Department of Biological Science
2009–2010 First year rotation and advising committee, Department of Biological Science
2009 Theoretical ecologist search committee, Department of Biological Science

General Service

2018 Okinawa Institute of Science and Technology External Ph.D. Thesis Examiner (Agneesh Baura)
2018 National Institutes of Health Genetic Variation and Evolution study section panelist
2017– Editorial Board for *Toxins*
2016– Associate Editor for *The Journal of Molecular Evolution*
2016– Florida Fish and Wildlife Conservation Commission Venomous Reptile Technical Assistance Group
2016– Grant-review panelist for the Uniformed Services University (USU) Center for Global Health Engagement (CGHE)
2013– National Science Foundation external reviewer
2015 Reviewer for the Biotechnology and Biological Sciences Research Council (BBSRC)
2015 National Institutes of Health Genetic Variation and Evolution study section panelist
2015 Pilot grant reviewer for The Center for Modeling Complex Interactions (CMCI) at the University of Idaho
2014 National Institutes of Health AREA Grant panelist
2014 NESCent: Integrating Organismal and Applied Perspectives on Animal Venom Diversity (meeting participant)
2012–2013 Grant proposal reviewer for the Leverhulme Trust
2012 National Science Foundation full-proposal panelist
2011 National Science Foundation Doctoral Dissertation Improvement Grant panelist

Reviews Provided for the Following Journals

- American Naturalist
- Biology Letters
- BMC Genomics
- Conservation Genetics
- Current Biology
- Evolution
- Expert Reviews of Proteomics
- Genetics
- Heredity
- Journal of Molecular Evolution
- Journal of Proteomics
- Journal of the Royal Society Interface
- Molecular Biology and Evolution
- Molecular Ecology
- PLOS Biology
- PLOS Computational Biology
- PLOS Genetics
- PLOS Neglected Tropical Diseases
- PLOS One
- Proceedings of the National Academy of Sciences
- Systematic Biology
- Theoretical Population Biology
- Toxicon
- Trends in Ecology and Evolution
- Virology