

CURRICULUM VITAE

Lena C. Hileman

*Department of Ecology and Evolutionary Biology
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CURRENT POSITIONS: Professor and Chair, Department of Ecology and Evolutionary Biology

FIELD OF SPECIALIZATION: plant evolutionary biology

RESEARCH INTERESTS: floral trait evolution, parallel evolution, flower developmental genetics

EDUCATION

- 2002-2005 Postdoctoral researcher, Department of Molecular, Cellular and Developmental Biology, Yale University. Advisor: Dr. Vivian Irish.
- 1996-2002 Ph.D. Department of Organismic and Evolutionary Biology, Harvard University, received 2002. Advisors: Drs. David Baum and Dr. Elena Kramer
- 1994-1996 M.S. in Biology, concentration in Ecology and Systematic Biology, San Francisco State University, received 2000.
- 1988-1994 B.S. in Biology, concentration in Cell and Molecular Biology, San Francisco State University, received 1994.

PROFESSIONAL POSITIONS AND APPOINTMENTS

- 2024 Interim director, KU Center for Genomics
- 2021-present Chair, Department of Ecology and Evolutionary Biology, University of Kansas.
- 2017-present Professor, Department of Ecology and Evolutionary Biology, University of Kansas.
- 2020-2021 Interim director, Office for Diversity in Science Training, University of Kansas.
- 2012-2017 Associate Professor, Department of Ecology and Evolutionary Biology, University of Kansas.
- 2005-2012 Assistant Professor, Department of Ecology and Evolutionary Biology, University of Kansas.

HONORS AND AWARDS

- 2022-2023 Senior Administrative Fellow, University of Kansas.
- 2022 K. Barbara Schowen Research Mentor Award, University of Kansas. One university-wide award given annually.
- 2012-2013 Kavli Fellow. Nominated by the National Academy of Sciences to co-chair the first (2013) Korean-American Kavli Frontiers of Science (KAFoS) organizing committee. <http://www.nasonline.org/programs/kavli-frontiers-of-science/>
- 2011 Mentor Recognition Award. In recognition of mentorship at KU in cooperation with programs at Haskell Indian Nations University and the KU Office for Diversity in Science Training. University of Kansas. One university-wide award given annually.
- 2007-2010 Kavli Fellow. Nominated by the National Academy of Sciences to represent the US at the 2007, 2008 and 2010 Japanese-American Kavli Frontiers of Science (JAFoS) Symposia.

	Organizing Committee member for the 2008 and 2010 JAFoS Symposia.
2008-2010	National Evolutionary Synthesis Center (NESCent) working group: Floral assembly: quantifying the composition of a complex adaptive structure, Invited participant.
2003-2004	Elizabeth Brown Postdoctoral Fellowship, Yale University.
2002	Ernst Mayr Award, Society for the Study of Systematic Biology.
2001 & 1998	Derek Bok Certificate of Distinction in Teaching, Harvard University.
1999-2000	Graduate Student Merit Fellowship, Harvard University.

EXTERNAL GRANTS IN DIRECT SUPPORT OF LCH'S RESEARCH PROGRAM

Total **research** funding from extramural awards as PI: **\$3,420,959**

Total **research** funding from extramural awards as coPI or mentor to postdoc: **\$720,408**

2024-2028	National Science Foundation IOS-2421327, "Collaborative Research: EDGE CMT: Linking genomic variation to complex floral trait adaptation across a species boundary" PI: <u>L.C. Hileman</u> , co-PI: J.K. \$1,346,335 to L.C.H.
2015-2023	National Science Foundation DEB-1624043, Dimensions of Biodiversity: "DIMENSIONS: COLLABORATIVE RESEARCH: The evolution of pollination syndrome diversity in <i>Penstemon</i> " PIs: <u>L.C. Hileman</u> (KU lead institution) and M.D. Rausher (Duke), coPI C. Wessinger (KU) \$996,868 to L.C.H.
2016-2021	National Science Foundation IOS-1555418, Developmental Systems Cluster: "COLLABORATIVE RESEARCH: Genetics and development of parallel pollination system evolution in <i>Penstemon</i> " PIs: <u>L.C. Hileman</u> (KU lead institution) and M.D. Rausher (Duke). \$264,726 to L.C.H.
2014-2017	NRSA/NIH postdoctoral fellowship, "The genetic and developmental basis of repeated phenotypic shifts in <i>Penstemon</i> ." Award supported Carolyn Wessinger, co-sponsors: L.C. Hileman and J.K. Kelly, 1F32GM110988-0, \$159,906.
2013-2016	National Science Foundation IOS-1255808, Developmental Systems Cluster: "COLLABORATIVE RESEARCH: Genetic and developmental changes associated with the evolution of a hummingbird-pollination floral syndrome" PI: <u>L.C. Hileman</u> . \$75,305.
2010-2014	National Science Foundation IOS-0951254, Developmental Systems Cluster: "The molecular basis for epigenetic inheritance of trichome patterning in <i>Mimulus</i> ." PI: J.K. Kelly, co-PI: <u>L.C. Hileman</u> , co-PI: A. Scoville. \$560,502. Funds controlled by J.K.K.
2011-2013	National Science Foundation IOS-1051886, Developmental Systems Cluster: "Determining the evolutionary developmental consequences of gene duplications in the SPL family of transcription factors." PI: <u>L.C. Hileman</u> , co-PI: J.C. Preston. \$240,000. Funds controlled by L.C.H.
2006-2010	National Science Foundation IOS-0616025, Developmental Systems Cluster: "The role of symmetry genes in establishing petal and stamen phenotypic diversity." PI: <u>L.C. Hileman</u> . \$487,323.
1999-2001	National Science Foundation DEB-9972647: "DISSERTATION RESEARCH: The role of floral symmetry genes in the evolution of stamen abortion in <i>Mohavea</i> (Scrophulariaceae, Antirrhineae)." PI: D.A. Baum (thesis advisor). \$9,402.00.

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- 2001 Botanical Society of America. Genetics Graduate Student Research Award: “Molecular evolution of floral symmetry genes (*CYCLOIDEA* and *DICHOTOMA*) in a recent tetraploid, *Mohavea*.” PI: L.C. Hileman. \$500.
- 1996 American Society of Plant Taxonomists. Thesis improvement grant: “Molecular phylogeny and biogeography of the Arbutioideae (Ericaceae.)” PI: L.C. Hileman. \$500.

OTHER EXTERNAL GRANTS

- 2020-2021 **National Institutes of Health** T34GM136453-01, “*MARC at the University of Kansas*.” PIs: L.C. Hileman (KU lead institution) and C.A. Wessinger (U. South Carolina), co-PI: J.K. Kelly (KU). \$1,573,994. *Note: I took over as PI on this award for one year while Dr. Paulyn Cartwright rotated at NSF.*
- 2015-2022 **National Science Foundation** IOS-1457236, “Delineating the Roles of Rising CO₂ and Temperature on Flowering Time across Pre-industrial through Future Conditions” PI: L.C. Hileman \$681,231. *Note: I took over as PI on this award after Dr. Joy Ward left KU.*

INTERNAL GRANTS IN DIRECT SUPPORT OF LCH’S RESEARCH PROGRAM (COMPETITIVE PROCESS)

Total **research** funding from internal awards as PI: **\$208,410**

Total **research** funding from internal awards as coPI or mentor: **\$328,867**

- 2023-2024 KU-Research GO “Connecting genome to phenome in the evolutionary of trait complexity” PI: L.C. Hileman. \$26,433.
- 2023-2024 KU General Research Fund ““Connecting genome to phenome in the evolutionary of trait complexity” PI: L.C. Hileman. \$19,336.
- 2020-2022 KU Research Excellence Fund, College of Liberal Arts and Sciences, University of Kansas. Hall Foundation direct award to L.C. Hileman through KU Endowment, “Floral evolution and development”. \$90,000.
- 2018 Research Excellence Fund, College of Liberal Arts and Sciences, University of Kansas. “Out of the fruit and into the flower: a test of the genetic basis for evolutionary novelty” PI: L.C. Hileman. \$5,000.
- 2013-2016 Provost’s Strategic Initiatives, University of Kansas. “Determining the effects of rising CO₂ and temperature on flowering time: Scientific and social implications” PI: J.K. Ward, co-PIs: L.C. Hileman and J. Nagel. \$328,867. Funds controlled by J.K.W.
- 2014-2015 EEB General Research Funds, University of Kansas. “Symmetry evolution across eudicot flowering plants.” PI: L.C. Hileman. \$10,529.
- 2011-2012 EEB General Research Funds, University of Kansas. “Establishing *Penstemon* as a model to determine whether parallel floral traits evolve through parallel changes in genetic regulatory networks.” PI: L.C. Hileman. \$13,466.
- 2009-2010 EEB General Research Funds, University of Kansas. “Determining the genetic basis for epigenetic inheritance of trichome density in *Mimulus guttatus* (yellow monkeyflower).” PI: L.C. Hileman, co-PI: J.K. Kelly. \$20,000. Funds controlled by L.C.H.
- 2008 New Faculty General Research Funds, University of Kansas. “Determining the effects of gene duplication and gene loss on a developmental genetic program.” PI: L.C. Hileman. \$7,712.

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- 2006-2007 EEB General Research Funds, University of Kansas. “Characterization of the MADS-box gene family across angiosperms.” PI: L.C. Hileman. \$13,434.
- 2001 GSAS Graduate Student Council Research Grant, Harvard University. “Pollination biology of *Mentzelia involucrata* and its mimic *Mohavea confertiflra*.” PI: L.C. Hileman. \$1,000.
- 2001 & 1998 OEB Graduate Student Research Grant, Harvard University. “Floral symmetry genes, *CYCLOIDEA* and *DICHOTOMA*: gene duplication and the evolution of stamen number in Antirrhineae.” PI: L.C. Hileman. \$1,500 (total of two awards)

OTHER INTERNAL GRANTS (COMPETITIVE PROCESS, SUPPORTING INITIATIVES BEYOND LCH’S RESEARCH PROGRAM)

- 2022-2026 KU-Research Rising “KU Center for Genomics – Research Rising: Growing KU’s Interdisciplinary Strengths in Genomics” PIs: R Unckless and L.C. Hileman. \$2,999,272.
- 2011 CLAS Instructional Technology Funds, University of Kansas. “Enhancing real-time PCR capabilities in the biological sciences. PI: L.C. Hileman. \$35,312.
- 2011 EEB Instructional Technology Funds, University of Kansas. \$1,200.

PUBLICATIONS, PEER REVIEWED

1. Anaya, B. M., A. T. Nguyen, K. K. S. Matsunaga, and **L. C. Hileman**. 2025. Expanded application to plant reproductive tissues of a branched DNA probe-based in situ hybridization method. *Applications in Plant Sciences* e70020. <https://doi.org/10.1002/aps3.70020>
2. Katzer, A. M., C. A. Wessinger, B. M. Anaya, and **L. C. Hileman**. 2025. CRABS CLAW-independent floral nectary development in *Penstemon barbatus*. *American Journal of Botany* 112(6): e70058. <https://doi.org/10.1002/ajb2.70058>
3. Liao, I. T., K. E. Sears, **L. C. Hileman**, and L. A. Nikolov. 2025. Different orthology inference algorithms generate similar predicted orthogroups among Brassicaceae species. *Applications in Plant Sciences* 13(1): e11627. <https://doi.org/10.1002/aps3.11627>
4. Dunivant, T. S., V. Singh, K. E. Livingston, J. D. Ross, and **L. C. Hileman** 2024. *CYCLOIDEA* paralogs function partially redundantly to specify dorsal flower development in *Mimulus lewisii*. *American Journal of Botany* 111(2): e16271. <https://doi.org/10.1002/ajb2.16271>
5. Wessinger, C.A., Katzer, A.M., Hime, P. Rausher, M.D., Kelly J.K., **Hileman, L.C.** 2023. A few essential genetic loci distinguish *Penstemon* species with flowers adapted to pollination by bees or hummingbirds. *PLOS Biology* 21(9):e3002294. doi: 10.1002/evl3.130
6. Sengupta, A., **Hileman, L.C.** 2022. A CYC–RAD–DIV–DRIF interaction likely pre-dates the origin of floral monosymmetry in Lamiales. *EvoDevo* 13:3 doi: 10.1186/s13227-021-00187-w
7. Liao, I.T, **Hileman, L.C.**, Roy, R. 2021. On the horizon for nectar-related research. *American Journal of Botany* 108:2326-30 doi: 10.1002/ajb2.1767
8. Wessinger, C.A., **Hileman, L.C.** 2020. Parallelism in flower evolution and development. *Annual Review of Ecology, Evolution, and Systematics* 51:387-405 doi: 10.1146/annurev-ecolsys-011720-124511
9. Colicchio, J, Kelly, J.K., **Hileman, L.C.** 2020. *Mimulus* sRNAs are wound responsive and associated with transgenerationally plastic genes but rarely both. *International Journal of Molecular Sciences* 21(20):7552 doi: 10.3390/ijms21207552

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10. Wessinger, C.A., Rausher, M.D., **Hileman, L.C.** 2019. Adaptation to hummingbird pollination is associated with reduced diversification in *Penstemon*. *Evolution Letters* 3(5):521-533 doi: 10.1002/evl3.130
 11. Katzer, A.M., Wessinger, C.A., **Hileman, L.C.** 2019. Nectary size is a pollination syndrome trait in *Penstemon*. *New Phytologist* 223:377-384 doi: 10.1111/nph.15769
 12. Sengupta, A., **Hileman, L.C.** 2018. Novel traits, flower symmetry, and transcriptional autoregulation: new hypotheses from bioinformatic and experimental data. *Frontiers in Plant Science* 9:1561 doi: 10.3389/fpls.2018.01561.
 13. Wessinger, C.A., Kelly, J.K., Jiang, P. Rausher, M.D., **Hileman, L.C.** 2018. SNP-skimming: A fast approach to map loci generating quantitative variation in natural populations. *Molecular Ecology Resources* 18. doi: 10.1111/1755-0998.12930
 14. Colicchio, J.M., Kelly, J.K., **Hileman, L.C.** 2018. Parental experience modifies the *Mimulus* methylome. *BMC Genomics* 19:746. doi: 10.1186/s12864-018-5087-x.
 15. Zhong, J., Preston, J.C., Hileman, L.C., Kellogg, E.A. 2017. Repeated and diverse losses of corolla bilateral symmetry in the Lamiaceae. *Annals of Botany* 119:21211-1223 doi: 10.1093/aob/mcx012.
 16. Wessinger, C.A., **Hileman, L.C.** 2016. Accessibility, constraint, and repetition in adaptive floral evolution. *Developmental Biology* 419:175-183. doi: 10.1016/j.ydbio.2016.05.003. *Note: invited contribution.*
 17. O'Meara, B.C.*, Smith, S.D.*, Armbruster, W.S., Harder, L.D., Hardy, C., **Hileman, L.C.**, Hufford, L., Litt, A., Magallon, S., Smith, S.A., Stevens, P.F., Fenster, C.B.°, Diggle, P.K.° 2016. Non-equilibrium dynamics and floral trait interactions shape extant angiosperm diversity. *Proceedings of the Royal Society, B.* 283:20152304. doi: <http://dx.doi.org/10.1098/rspb.2015.2304> *These lead authors contributed equally, and °these senior authors contributed equally. *Note: this paper is the product of a NESCent working group - Floral assembly: quantifying the composition of a complex adaptive structure.*
 18. Wessinger, C.A., Freeman, C.C., Mort, M.E., Rausher, M.D., **Hileman, L.C.** 2016. Multiplexed shotgun genotyping resolves species relationships within the recently radiated North American genus *Penstemon*. *American Journal of Botany* 103:912-922. doi: 10.3732/ajb.1500519. *Note: this paper was a subject of the American Journal of Botany May 2016 issue "Highlights."*
 19. Preston, J.C., Jorgensen, S.A., Orozco, R., **Hileman, L.C.** 2016. Paralogous *SQUAMOSA* *PROMOTER BINDING PROTEIN-LIKE* (SPL) genes differentially regulate leaf initiation and reproductive phase change in petunia. *Planta* 243:429-40. doi: 10.1007/s00425-015-2413-2.
 20. Colicchio J.M., Miura F., Kelly J.K., Ito T., **Hileman, L.C.** 2015. DNA methylation and gene expression in *Mimulus guttatus*. *BMC Genomics* 16:504. doi: 10.1186/s12864-015-1668-0.
 21. Colicchio, J.M., Monnahan, P.J., Kelly, J.K., **Hileman, L.C.** 2015. Gene expression plasticity resulting from parental leaf damage in *Mimulus guttatus*. *New Phytologist* 205:894-906. doi: 10.1111/nph.13081.
 22. Preston, J.C., Barnett, L.L., Kost, M.A., Oborny, N.J., **Hileman, L.C.** 2014. Optimization of virus-induced gene silencing to facilitate evo-devo studies in the emerging model species *Mimulus guttatus* DC. (Phrymaceae). *Annals of the Missouri Botanical Garden* 99:301-312. doi: 10.3417/2010120.
 23. Wessinger, C.A., **Hileman, L.C.***, Rausher, M.D.* 2014. Identification of major QTLs underlying floral pollination syndrome divergence in *Penstemon*. *Philosophical Transactions of the Royal Society B* 369:20130349. doi: 10.1098/rstb.2013.0349. *These senior authors contributed equally. *Note: invited contribution.*
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24. **Hileman, L.C.** 2014. Trends in flower symmetry evolution revealed through phylogenetic and developmental genetic advances. *Philosophical Transactions of the Royal Society B* 369:20130348. doi: 10.1098/rstb.2013.0348. *Note: invited contribution.*
 25. **Hileman, L.C.** 2014. Bilateral flower symmetry – how, when and why? *Current Opinion in Plant Biology* 17:146-152. doi: 10.1016/j.pbi.2013. *Note: invited contribution.*
 26. Preston, J.C., **Hileman, L.C.** 2013. Functional evolution in the plant *SQUAMOSA-PROMOTER BINDING PROTEIN-LIKE* (SPL) gene family. *Frontiers in Plant Evolution and Development* 4:80. doi: 10.3389/fpls.2013.00080.
 27. Brockington, S.F., Alvarez-Fernandez, R., Landis, J.B., Alcorn, K., Walker, R.W., Thomas M.M., **Hileman, L.C.**, Glover, B.J. 2013. Evolutionary analysis of the MIXTA gene family highlights potential targets for the study of cellular differentiation. *Molecular Biology and Evolution* 30:526-540. doi: 10.1093/molbev/mss260.
 28. Preston, J.C., **Hileman, L.C.** 2012. Parallel evolution of TCP and B-class genes in Commelinaceae flower bilateral symmetry. *EvoDevo* 3:6. doi: 10.1186/2041-9139-3-6.
 29. Baker, R.L., **Hileman, L.C.**, Diggle, P.K. 2012. Patterns of shoot architecture in locally adapted populations are linked to intraspecific differences in gene regulation. *New Phytologist* 196:271-281. doi: 10.1111/j.1469-8137.2012.04245.x
 30. Landis, J.B., Barnett, L.L., **Hileman, L.C.** 2012. Evolution of petaloid sepals independent of shifts in B-class MADS box gene expression. *Development, Genes and Evolution* 222:19-28. doi: 10.1007/s00427-011-0385-1
 31. Preston, J.C., **Hileman, L.C.**, and Cubas, P. 2011. Reduce, reuse, and recycle: Developmental evolution of trait diversification. *American Journal of Botany* 98:397-403. doi: 10.3732/ajb.1000279. *Note: invited contribution.*
 32. Scoville, A.G., Barnett, L.L., Bodbyl-Roels, S., Kelly, J.K., and **Hileman, L.C.** 2011. Differential regulation of a MYB transcription factor is correlated with transgenerational epigenetic inheritance of trichome density in *Mimulus guttatus*. *New Phytologist* 191(1): 251-263. doi: 10.1111/j.1469-8137.2011.03656.x. *Note: article featured in an invited commentary: Richards, C.L., and Wendel, J.F. 2011. The hairy problem of epigenetics in evolution. New Phytologist 191(1): 7-9.*
 33. Preston, J.C., Martinez, C.C., and **Hileman, L.C.** 2011. Gradual disintegration of the floral symmetry gene network is implicated in the evolution of a wind-pollination syndrome. *Proceedings of the National Academy of Sciences, USA* 108(6):2343-2348. doi: 10.1073/pnas.1011361108. *Note: article featured in news media outlets: KU News, KU-Research Matters, PHYSORG, Faculty of 1000 (in the top 5% of user accesses for two weeks following F1000 listing).*
 34. Preston, J.C., and **Hileman, L.C.** 2010. SQUAMOSA-PROMOTER BINDING PROTEIN 1 initiates flowering in *Antirrhinum majus* through the activation of meristem identity genes. *The Plant Journal* 62:704-712. doi: 10.1111/j.1365-313X.2010.04184.x.
 35. Preston, J.C., Kost, M.A., and **Hileman, L.C.** 2009. Conservation and diversification of the symmetry developmental program among close relatives of snapdragon with divergent floral morphologies. *New Phytologist* 182(3):751-762. doi: 10.1111/j.1469-8137.2009.02794.x.
 36. Preston, J.C., and **Hileman, L.C.** 2009. Developmental genetics of floral symmetry evolution. *Trends in Plant Science* 14(3):147-154. doi: 10.1016/j.tplants.2008.12.005.
 37. **Hileman, L.C.**, and Irish, V.F. 2009. More is better: The uses of developmental genetic data to reconstruct perianth evolution. *American Journal of Botany* 96: 83-95. doi: 10.3732/ajb.0800066. *Note: invited contribution.*
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38. Drea S., **Hileman, L.C.**, de Martino, G., and Irish, V.F. 2007. Functional analyses of genetic pathways controlling petal specification in poppy. *Development* 134:4157-4166. doi: 10.1242/dev.013136.
 39. **Hileman, L.C.**, Sundstrom, J., Litt, A., Chen, M.Q., Shumba, T., and Irish, V.F. 2006. Molecular and phylogenetic analyses of the MADS-box gene family in Tomato. *Molecular Biology and Evolution*. 23(11):2245-2258. doi: 10.1093/molbev/msl095.
 40. **Hileman, L.C.**, Drea, S., de Martino, G., Litt, A., and Irish, V.F. 2005. Virus-induced gene silencing is an effective tool for assaying gene function in the basal eudicot species *Papaver somniferum* (opium poppy). *Plant Journal* 44:334-341. doi: 10.1111/j.1365-313X.2005.02520.x.
 41. Smith, J.F., **Hileman, L.C.**, Powell, M., and Baum, D.A.. 2004. Evolution of *GCYC*, a Gesneriaceae homolog of *CYCLOIDEA*, within subfamily Gesnerioideae (Gesneriaceae). *Molecular Phylogenetics and Evolution* 31(2):765-79. doi: 10.1016/j.ympev.2003.09.012.
 42. Smith, J.F., Draper, S.B., **Hileman, L.C.**, and Baum, D.A. 2004. A phylogenetic analysis within tribes Gloxinieae and Gesnerieae (Gesnerioideae: Gesneriaceae). *Systematic Botany* 29(4):947-958.
 43. **Hileman, L.C.**, Kramer, E.M., and Baum, D.A. 2003. Differential regulation of symmetry genes and the evolution of floral morphologies. *Proceedings of the National Academy of Sciences, USA* 100(22):12814-12819. doi: 10.1073/pnas.1835725100.
 44. **Hileman, L.C.**, and Baum, D.A. 2003. Why do paralogs persist? Molecular evolution of *CYCLOIDEA* and related floral symmetry genes in Antirrhineae (Veronicaceae). *Molecular Biology and Evolution* 20(4):591-600. doi: 10.1093/molbev/msg063.
 45. **Hileman, L.C.**, Vasey, M.C., and Parker, V.T. 2001. Phylogeny and biogeography of the Arbutoideae (Ericaceae): Implications for the Madrean-Tethyan hypothesis. *Systematic Botany* 26:131-143.
 46. Shu, G., Amaral, W., **Hileman, L.C.**, and Baum, D.A. 2000. *LEAFY* and the evolution of rosette flowering in violet cress (*Jonopsidium acaule*, Brassicaceae). *American Journal of Botany* 87:634-641.
 47. Markos, S.E., **Hileman, L.C.**, Vasey, M.C., and Parker, V.T. 1998. Phylogeny of the *Arctostaphylos hookeri* complex (Ericaceae) based on (nr)DNA data. *Madroño* 45:187-199.
 48. Cullings, K.W., and **Hileman, L.C.** 1998. The Monotropoideae is a monophyletic sister group to the Arbutoideae (Ericaceae): a molecular test of Copeland's hypothesis. *Madroño* 44(3).

PUBLICATIONS, MINOR OR NON-PEER REVIEWED

1. **Hileman, L.C.** 2012. Flowers. In *Encyclopedia of Life Sciences (eLS)*. John Wiley & Sons Ltd, Chichester. <http://www.els.net> doi: 10.1002/9780470015902.a0002063.pub2.
2. **Hileman, L.C.** 2009. Penetrating the black box of phylogenetic analysis. *Development*. 136:4067-4068. Note: invited book review.
3. **Hileman, L.C.**, and Cubas, P. 2009. An expanded evolutionary role for flower symmetry genes. *Journal of Biology* 8:90. Note: invited contribution.
4. Baum, D.A., and **Hileman, L.C.** 2006. Genetic model for the origin of flowers. Chap. 1 in "Flowering and its manipulation" (C. Ainsworth, ed.), Blackwell Publishing, Sheffield, UK. Note: invited book chapter.

INVITED SEMINARS AND SYMPOSIA

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1. **Hileman, L.C.** Floral diversification in the wildflower genus, *Penstemon*. Lawrence Master Gardeners, August 2024.
 2. **Hileman, L.C.** Floral diversification in the wildflower genus, *Penstemon*. KU Women's Club, November 2023.
 3. **Hileman, L.C.** Patterns and processes of floral diversification in the wildflower genus *Penstemon*. Donald R. Kaplan Memorial Lecture, Annual Conference of the Botanical Society of America. Anchorage, Alaska, July 2022
 4. **Hileman, L.C.** Patterns and processes of floral diversification in the wildflower genus *Penstemon*. International Symposium on Ornamental Horticulture. Nanjing Agricultural University, Nanjing China (virtual), July 2022
 5. **Hileman, L.C.** Phylogenetic and genetic patterns of floral evolution in *Penstemon*. University of Georgia 2019 Plant Center Spring Symposium. Advancing Plant Sciences: From Cells to Ecosystems. Athens GA, May 16, 2019
 6. **Hileman, L.C.** Phylogenetic and genetic patterns of floral evolution in *Penstemon*. Botany Conference 2016, Savannah GA, July 30-Aug. 3, 2016.
 7. **Hileman, L.C.** Convergence in flower form: from evolutionary patterns to developmental processes. 37th New Phytologist Symposium: Plant Developmental Evolution, Beijing China, May 15-19, 2016.
 8. **Hileman, L.C.** Dissecting the ecological and genetic basis of floral diversity in *Penstemon*. EMBO/EMBL Symposium: New Model Systems for Linking Evolution and Ecology, Heidelberg Germany, May 8-11, 2016.
 9. **Hileman, L.C.** Convergence in flower form: from evolutionary patterns to developmental processes. Department of Botany and Plant Pathology, Oregon State University, April 2016.
 10. **Hileman, L.C.** Convergence in flower form: from evolutionary patterns to developmental processes. Department of Biology, University of Kentucky, December 2015.
 11. **Hileman, L.C.** Investigating genetic mechanisms underlying repeated patterns of floral evolution. Department of Biology, Emporia State University, February 2015.
 12. **Hileman, L.C.** Investigating genetic mechanisms underlying repeated patterns of floral evolution. 12th Annual Symposium in Plant Biology, University of Massachusetts, Amherst, September 2014.
 13. **Hileman, L.C.** Plant adaptation to dynamic environments. Red Hot Research Symposium at The Commons, University of Kansas. January 2014.
 14. **Hileman, L.C.** Parallelism in floral evolution. Evolutionists Society, Lawrence KS. October 2013.
 15. **Hileman, L.C.** Diversification of developmental programs: looking across clades and across generations. Chicago Field Museum Plant Sciences Symposium. Chicago Illinois. April 2013.
 16. **Hileman, L.C.**, Kelly, J.K., Colicchio, J., Scoville, A.G. RNA-seq identifies global patterns of gene expression correlated with damage induced trichome production across generations. Cold Spring Harbor Asia Conference: Plant Epigenetics, Stress and Evolution. Suzhou China. October 2012.
 17. **Hileman, L.C.** Evolution of flower developmental genetic programs. School of Plant Sciences, University of Arizona. February 2012.
 18. **Hileman, L.C.** Diversification of plant developmental programs: looking across generations and across clades. Department of Ecology and Evolutionary Biology, University of Connecticut. February 2012.
 19. **Hileman, L.C.** Evolution of flower developmental genetic programs. School of Biological Sciences, University of Nebraska. December 2011.
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20. **Hileman, L.C.** and Preston, J.C. New insights and future directions for understanding the developmental genetic basis of convergent floral trait evolution. XVIII International Botanical Congress, Melbourne Australia, July 2011.
 21. **Hileman, L.C.** Developmental evolution of floral diversification: new insights from snapdragon and relatives. Program in Genetics and Genomics, Duke University. May 2011.
 22. **Hileman, L.C.** Exploring evolution of floral diversity from a developmental genetic perspective. Department of Biology, Truman State University. October 2010.
 23. **Hileman, L.C.** Evolution of flower symmetry developmental programs. Department of Plant Biology, Oklahoma State University. October 2010.
 24. **Hileman, L.C.** Evolution in the flower symmetry developmental genetic program. Department of Ecology, Evolution and Organismal Biology, Iowa State University. March 2010.
 25. **Hileman, L.C.** Evolution of petal and stamen developmental patterning: from poppies to snapdragons. Department of Biology, University of Nebraska, Omaha. April 2008.
 26. **Hileman, L.C.**, Drea, S., and Irish, V.F. *Poster presentation*. Functional analyses of genetic pathways controlling petal specification in poppy. 10th Annual Symposium of the Japanese-American Frontiers of Science, Shonan Village, Kanagawa, Japan. December 2007.
 27. **Hileman, L.C.** Evolution of Stamen and Petal Developmental Patterning: from poppy to snapdragon. Department of Plant Biology, University of Minnesota. September 2007.
 28. **Hileman, L.C.** Symmetry genes and the evolution of floral phenotypes among close relatives of snapdragon. Botany and Plant Biology Joint Congress, Chicago, Illinois. July 2007.
 29. **Hileman, L.C.** Evolution of Stamen and Petal Developmental Patterning: from poppy to snapdragon. Department of Biology, Kansas State University. April 2007.
 30. **Hileman, L.C.** Evolution of Stamen and Petal Developmental Patterning: from poppy to snapdragon. Ecology and Evolutionary Biology, University of Colorado. February 2007.
 31. **Hileman, L.C.** The ABCs of petal and stamen development in poppy. Evolutionists Society, Lawrence KS. December 2006.
 32. **Hileman, L.C.** The genetic basis for stamen number evolution among close relatives of snapdragon. Annual Evolution Conference, Plant Regulatory Genes Symposium, Fort Collins, Colorado. June 2004
 33. **Hileman, L.C.** Symmetry genes and the evolution of flower development. Department of Ecology and Evolutionary Biology, University of Michigan. March 2004.
 34. **Hileman, L.C.** Floral symmetry genes and stamen number evolution in Antirrhineae. Department of Ecology and Evolutionary Biology, Yale University. January 2003.

CONTRIBUTED PRESENTATIONS (1st author presented paper/poster)

1. Friedrichs, G., **Hileman, L.C.**, *Poster presentation*. A Dobzhansky-Muller incompatibility may contribute to reproductive isolation between *Penstemon kunthii* and *P. amphorellae*. Annual Botany conference, Palm Springs California, July 2025
2. Nedblake, H., **Hileman, L.C.**, *Oral presentation*. Floral color evolution in *Penstemon*. Annual Botany conference, Palm Springs California, July 2025
3. Nedblake, H., Wessinger, C.A., **Hileman, L.C.**, *Oral presentation*. Parallel evolution of corolla tube width shifts in *Penstemon*. Annual Botany conference, Grand Rapids Michigan, June 2024

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4. Michael, T., Wessinger, C.A., **Hileman, L.C.**, *Poster presentation*. How does *Penstemon cobaeae* style length variation develop and affect mating systems? Annual Botany conference, Grand Rapids Michigan, June 2024
 5. Liao, I., Sears, K., **Hileman, L.C.**, Nikolov, L. *Oral presentation*. Candidate genes underlying nectary development in banana and asparagus. Annual Botany conference, Boise Idaho, July 2023
 6. Nedblake, H., Tidwell, M., Wessinger, C.A., **Hileman, L.C.** *Poster presentation*. Parallel evolution of corolla tube width shifts in *Penstemon*. Annual Botany conference, Boise Idaho, July 2023
 7. Liao, I., N. Hayama, M., **Hileman, L.C.**, Nikolov, L. *Poster presentation*. Approaches for investigating the genetic basis of monocot nectary development. Annual Botany conference, Anchorage, Alaska, July 2022.
 8. Katzer, A.M., Wessinger, C.A. **Hileman, L.C.** *Oral presentation*. Candidate genes for nectary development in *Penstemon*. Annual Botany conference, Anchorage, Alaska, July 2022.
 9. Schlenk, N., Wessinger, C.A., **Hileman, L.C.** *Poster presentation*. The *Penstemon kunthii* draft genome: integrating a genetic map with assembled sequence. Annual Botany conference, Anchorage, Alaska, July 2022.
 10. Katzer, A.M., Wessinger, C.A. **Hileman, L.C.** *Oral presentation*. Candidate genes for nectary development in *Penstemon*. Annual Society for Integrated and Comparative Biology Conference, Phoenix, AZ, January 2022
 11. Dunivant, T.C., Singh, V., Livingston, K. **Hileman, L.C.** *Oral presentation*. *CYC'd Out: CYCLOIDEA* paralogs exhibit redundant function in establishing dorsal petal identity in *Mimulus lewisii*. Annual Botany conference, Virtual, July 2021.
 12. Schlenk, N., Katzer, A.M., **Hileman, L.C.** *Poster presentation*. *CRABS CLAW* gene expression associated with nectary development in *Penstemon*. Annual Botany conference, Virtual, July 2021.
 13. Nedblake, H. Wessinger, C.A., **Hileman, L.C.** *Poster presentation*. Evolution of floral pigment intensity in *Penstemon*. Annual Botany conference, Virtual, July 2021.
 14. Katzer, A.M., Wessinger, C.A., **Hileman, L.C.** *Poster presentation*. Candidate genes for nectary development in *Penstemon*. Annual Botany conference, Virtual, July 2021.
 15. Wessinger, C.A., Kelly, J.K., **Hileman, L.C.** *Oral presentation*. Pollination syndrome divergence in a species complex despite genetic intermingling. Annual Botany Conference, Virtual, July 2020.
 16. Dunivant, T., Singh, V., **Hileman, L.C.** *Poster presentation*. Investigation of the function and expression of symmetry genes in *Mimulus lewisii*. Annual Botany Conference, Virtual, July 2020.
 17. Nedblake, H., Wessinger, C.A., **Hileman, L.C.** *Poster presentation*. Evolution of floral pigments in *Penstemon*. Annual Botany Conference, Virtual, July 2020.
 18. Katzer, A.M., Wessinger, C.A., **Hileman, L.C.** *Oral presentation*. Nectary specific gene expression in *Penstemon*. Annual Botany Conference, Virtual, July 2020.
 19. Sengupta, A., **Hileman, L.C.** *Oral presentation*. A CYC-RAD interaction predates the origin of Lamiales zygomorphy. Annual Botany Conference, Virtual, July 2020.
 20. Katzer, A.M., Wessinger, C.A., **Hileman, L.C.** *Oral Presentation*. Nectary size is a pollination syndrome trait in *Penstemon*. Annual Society for Integrative and Comparative Biology, Austin, TX. January 2020.
 21. Wessinger, C.A., Rausher, M.D., **Hileman, L.C.** *Oral Presentation*. Adaptation to hummingbird pollination is associated with reduced diversification in *Penstemon*. Annual Evolution Conference, Providence, RI. June 2019.
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22. Katzer, A., Wessinger, C.A., **Hileman, L.C.** *Poster Presentation*. Developmental shifts to the nectary are associated with hummingbird adaptation in *Penstemon*. Annual Botany Conference, Rochester, MN. July 2018.
 23. Sengupta, A., **Hileman, L.C.** *Oral Presentation*. Of central importance: control of carpel zygomorphy in the tribe Antirrhineae by *CYCLOIDEA-RADIALIS* interaction. Annual Botany Conference, Rochester, MN. July 2018.
 24. Wessinger, C.A., Kelly, J.K., **Hileman, L.C.** *Oral Presentation*. SNP-skimming: a fast approach to map loci generating quantitative variation in natural populations. Annual Botany Conference, Rochester, MN. July 2018.
 25. Wessinger, C.A., Kelly, J.K., **Hileman, L.C.** *Oral Presentation*. A genomic scan for flower shape variation in *Penstemon virgatus*: implications for transitions to hummingbird pollination. Annual Evolution Conference, Portland, OR. June 2017.
 26. Katzer, A.M., Wessinger, C.A., **Hileman, L.C.** Parallel developmental processes in the repeated evolution of hummingbird-adapted flowers. *Poster Presentation*. Biennial Pan-American Evolutionary Developmental Biology Conference, Calgary, Canada. August 2018.
 27. Sengupta, A., **Hileman, L.C.** *Oral Presentation*. Searching for more: *Antirrhinum* corolla symmetry genetic network in carpel development. Annual Botany Conference, Fort Worth, Texas. June 2017.
 28. Sengupta, A., **Hileman, L.C.** *Poster Presentation*. Testing the role of bilateral flower symmetry genes in eudicot lineages with radial flowers. Annual Botany Conference, Edmonton, Canada. July 2015.
 29. Wessinger, C., Rausher, M.D., **Hileman, L.C.** *Oral Presentation*. Parallel evolutionary shifts from bee to hummingbird pollination in *Penstemon* may be genetically easy (but difficult to reverse?). Pan-American Society for Evolutionary Developmental Biology Conference, Berkeley, California. August 2015.
 30. Wessinger, C., Rausher, M.D., **Hileman, L.C.** *Poster Presentation*. Genomic basis of pollination syndrome divergence in *Penstemon*. Annual Ecological Genomics Conference, Kansas City, Missouri. October 2014.
 31. Wessinger, C., **Hileman, L.C.**, Rausher, M.D. *Oral presentation*. Identification of major QTLs underlying floral pollination syndrome divergence in *Penstemon*. Annual Evolution Conference, Raleigh, North Carolina, June 2014.
 32. Colicchio, J., Sandhu, S., **Hileman, L.C.**, Kelly, J.K. *Poster presentation*. QTL mapping, RNA sequencing, and candidate gene silencing of SKP-1 to initiate trichome production in otherwise glabrous *Mimulus guttatus*. Annual Plant Biology Conference, Portland, Oregon, July 2014.
 33. O'Meara, B., Smith, S., Armbruster, S.W., Harder, L., Hardy, C., **Hileman, L.**, Hufford, L., Litt, A., Magallon, S., Smith, S., Stevens, P., Fenster, C., Diggle, P. *Oral presentation*. Non-equilibrium dynamics lead to long-term persistence of ancestral floral forms in modern angiosperms. Annual Evolution Conference, Raleigh, North Carolina, June 2014.
 34. Colicchio, J. Kelly, J.K., **Hileman, L.C.** *Oral presentation*. Transgenerational gene expression plasticity in *Mimulus guttatus*. Annual Evolution Conference, Snowbird, Utah, June 2013.
 35. Colicchio, J., Kelly, J.K., **Hileman, L.C.** *Poster presentation*. The inheritance of altered gene expression in response to parental conditions (*Mimulus guttatus*). Annual Ecological Genomics Conference, Kansas City, Missouri. October 2012.
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36. Preston, J.C., Orozco, R., **Hileman, L.C.** *Oral presentation.* Evolution of *SQUAMOSA-PROMOTER BINDING PROTEIN LIKE* (*SPL*) genes in the core eudicot flowering time and branching pathways. Annual Botany Conference, Columbus, Ohio. July 2012.
 37. Colicchio, J., Kelly, J.K. **Hileman, L.C.** *Poster presentation.* Leaf damage to *Mimulus guttatus* leads to increased stress response and altered gene expression in their offspring. Annual Midwestern Section Meeting of American Society of Plant Biologists, Lincoln, Nebraska. March 2012.
 38. Preston, J.C., and **Hileman, L.C.** *Oral presentation.* Candidate gene expression provides insights into the evolution of Commelinaceae inner tepal symmetry. Annual Botany Conference, St. Louis, Missouri. July 2011.
 39. Landis, J.B., and **Hileman, L.C.** *Oral presentation.* The birds and the bees: Investigating a role for *MIXTA* genes in pollinator shifts. Annual Botany Conference, Providence, Rhode Island. July 2010.
 40. Preston, J.C., and **Hileman, L.C.** *Oral presentation.* Evolution of the floral symmetry gene network following independent gene duplications in *Antirrhinum majus* and *Mimulus guttatus*. Annual Evolution Conference, Portland, Oregon. June 2010.
 41. Landis, J.B., and **Hileman, L.C.** *Oral presentation.* The birds and the bees: Investigating a role for *MIXTA* genes in pollinator shifts. Annual Evolution Conference, Portland, Oregon. June 2010.
 42. Landis, J.B., Barnett, L.L., and **Hileman, L.C.** *Oral presentation.* Determining the genetic basis for petal-like sepals in a close relative of snapdragon. Sigma Xi conference, University of Kansas chapter research paper competition. April 2010.
 43. Landis, J.B., Baldridge, L.L., and **Hileman, L.C.** *Poster presentation.* Determining the genetic basis for petal-like sepals in a close relative of snapdragon. Annual Ecological Genomics Conference, Kansas City, Missouri. November 2009.
 44. Landis, J.B., Baldridge, L.L., and **Hileman, L.C.** *Poster presentation.* Determining the genetic basis for petal-like sepals in a close relative of snapdragon. Annual Botany Conference, Snowbird, Utah. July 2009.
 45. Landis, J.B., Baldridge, L.L., and **Hileman, L.C.** *Poster presentation.* Determining the genetic basis for petal-like sepals in a close relative of snapdragon. Annual Evolution Conference, Moscow, Idaho. June 2009.
 46. Preston, J.C., and **Hileman, L.C.** *Oral presentation.* A putative regulator of the *API/FUL* floral meristem identity genes initiates flowering in *Antirrhinum majus*. Annual Botany Conference, Snowbird, Utah. July 2009.
 47. Martinez, C.C., Preston, J.C., and **Hileman, L.C.** *Poster presentation.* Duplication and divergence of Veronicaceae floral symmetry genes: implications for the reduction/loss of floral zygomorphy and stamens. 25th Symposium on Plant Biology, University of California, Riverside. January 2009.
 48. Preston, J.C., Kost, M.A., and **Hileman, L.C.** *Oral presentation.* Determining the role of candidate TCP and MYB genes in Veronicaceae petal symmetry and stamen number evolution. Annual Botany Conference, Vancouver, British Columbia. July 2008.
 49. Preston, J.C., Kost, M.A., and **Hileman, L.C.** *Oral presentation.* Investigating the role of *CYCLOIDEA*-, *RADIALIS*- and *DIVARICATA*-like genes in the evolution of Veronicaceae stamen and petal developmental patterning. Annual Evolution Conference, Minneapolis, Minnesota. June 2008.
 50. **Hileman, L.C.**, Baldridge, L.L., Holeski, L.M., and Kelly, J.K. *Oral presentation.* Determining the epigenetic basis for inheritance of trichome patterning in *Mimulus guttatus* (yellow monkeyflower). Annual Evolution Conference, Minneapolis, Minnesota. June 2008.
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51. Baldridge, L.L., Holeski, L.M., Kelly, J.K., and **Hileman, L.C.** *Poster presentation.* Determining the epigenetic basis for inheritance of trichome density in *Mimulus guttatus* (yellow monkeyflower). Annual Ecological Genomics Symposium, Kansas City, Missouri. November 2007.
 52. Birey, F., and **Hileman, L.C.** *Poster presentation.* Comparing the developmental genetic basis for bilateral flower symmetry between two model species: snapdragon and monkeyflower. Annual Ecological Genomics Symposium, Kansas City, Missouri. November 2007.
 53. Kost, M.A., Baldridge, L.L., Preston, J.C., and **Hileman, L.C.** *Poster presentation.* Combining studies of gene expression and protein function to determine the role of symmetry genes in the evolution of stamen number. Annual Ecological Genomics Symposium, Kansas City, Missouri. November 2007.
 54. Drea, S., **Hileman, L.C.**, de Martino, G., and Irish, V.F. *Oral presentation.* Independent derivation of petals is correlated with the redeployment of MADS-box gene function. Botany and Plant Biology Joint Congress, Chicago, Illinois. July 2007.
 55. Yi, T., **Hileman, L.C.**, and Kalisz, S. *Poster presentation.* Expression studies and rates of evolution of *CYCLOIDEA*: a comparative study of *Collinsia* and North American *Antirrhinum*. Annual Evolution Conference, Stony Brook, New York. June 2006.
 56. **Hileman, L.C.**, Kramer, E.M., and Baum, D.A. *Poster presentation.* Floral symmetry genes are implicated in the evolution of stamen number in the Antirrhineae (Veronicaceae). Flowers: Diversity Development Evolution, Institute of Systematic Botany, University of Zurich, Zurich, Switzerland. July 2002.
 57. **Hileman, L.C.**, Kramer, E.M., and Baum, D.A. *Oral presentation.* Floral symmetry genes are implicated in the developmental evolution of stamen number in the Antirrhineae (Veronicaceae). Annual Botany Conference, Madison, Wisconsin. July 2002.
 58. **Hileman, L.C.**, Kramer, E.M., and Baum, D.A. *Oral presentation.* Floral symmetry genes and stamen number evolution in *Mohavea*, a close relative of snapdragon. Annual Evolution Conference, Urbana-Champaign, Illinois. June 2002.
 59. **Hileman, L.C.**, and Baum, D.A. *Oral presentation.* Molecular evolution of the *CYCLOIDEA* gene family in Antirrhineae. Annual Evolution Conference, Knoxville, Tennessee. June 2001.
 60. **Hileman, L.C.**, and Baum, D.A. *Poster presentation.* Molecular evolution of the *CYCLOIDEA* gene family in Antirrhineae. Developmental Genetics and Plant Evolution Conference, London, UK. August 2000.
 61. **Hileman, L.C.**, and Baum, D.A. *Oral presentation.* The role of floral symmetry genes in the evolution of stamen abortion in *Mohavea* (Antirrhineae, Scrophulariaceae). Annual Evolution Conference, Madison, Wisconsin. June 1999.
 62. **Hileman, L.C.**, and Baum, D.A. *Oral presentation.* The role of floral symmetry genes in the evolution of stamen abortion in *Mohavea* (Scrophulariaceae, Antirrhineae). 9th Annual International Antirrhinum Conference, Madrid, Spain. May 1999.
 63. **Hileman, L.C.**, and Baum, D.A. *Poster presentation.* The role of the floral symmetry gene *CYC* in stamen abortion in *Mohavea* (Antirrhineae, Scrophulariaceae). Annual Evolution Conference, Vancouver, British Columbia. June 1998.
 64. **Hileman, L.C.**, Parker, V.T., Vasey, M.C., and Orrego, C. *Oral presentation.* Phylogeny and biogeography of *Arbutus* (Ericaceae), a putative Madrean-Tethyan disjunct genus. Annual Botany Conference, San Diego, California. July 1995.
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65. **Hileman, L.C.**, Parker, V.T, Vasey, M.C., and Orrego, C. *Oral presentation*. Preliminary generic relationships of the Arbutioideae (Ericaceae) based on molecular sequence data. Annual Botany Conference, Knoxville, Tennessee. July 1994.

COURSES TAUGHT

- BIOL 152: *Principles of Organismal Biology* (lower-level undergraduate course, *ca.* 550 students); 3 credits (50%); University of Kansas, Spring 2025
- BIOL 412: *Evolutionary Biology* (core undergraduate course, *ca.* 200 students); 4 credits (team-taught: 50%); University of Kansas, Falls 2006-2008, Springs 2009-2023 (sabbatical Spring 2018, chair release Spring 2022)
- BIOL 420: *Biology of Flowers* (upper-level undergraduate course, *ca.* 12 students); 3 credits (100%); University of Kansas, Fall 2012
- BIOL 420: *Responsible Conduct in Research for ODSST students* (undergraduate/postbaccalaureate seminar course, *ca.* 10 students); 1 credit (team-taught: 50%); University of Kansas, Spring 2021.
- BIOL 545: *Evolution of Development* (upper-level undergraduate lab/lecture course, *ca.* 16 students); 2 lecture credits plus 2 lab credits (team-taught: 50%); University of Kansas, Falls 2015-2019, 2021.
- BIOL 545: *Evolution of Development* (upper-level undergraduate course, *ca.* 16 students); 3 credits (100%); University of Kansas, Spring 2006, 2008, 2011
- BIOL 699: *Biology Honors Research Colloquium* (upper-level undergraduate seminar, 8 students); 1 credit (100%); University of Kansas, Spring 2024
- BIOL 701: *Evolutionary Developmental Biology* (graduate seminar course, *ca.* 5 students); 3 credits (team-taught: 50%); University of Kansas, Spring 2007
- BIOL 701: *Responsible Conduct in Research* (graduate seminar course, *ca.* 20 students); 1 credit (100%); University of Kansas, Fall 2013, 2014
- BIOL 801: *EEB-Genetics discussion group* (graduate seminar course, *ca.* 5 enrolled and 20 participants); 1 credit (100%); University of Kansas, both Fall and Spring 2012-2021 (sabbatical Spring 2018)
- BIOL 801: *Core Topics in Current EEB Research* (graduate seminar course, 23 students); 1 credit (team-taught: 50%); University of Kansas, Spring 2024
- BIOL 805: *Scientific Integrity* (graduate seminar course, *ca.* 14 students); 1 credit (team-taught: 50%); University of Kansas, Falls 2018, 2019, 2023

GUEST LECTURES

- BIOL 419: *Topics in Advanced Biology*, Spring 2006, 2008, 2011
- BIOL 427: *Developmental Biology Lab*, developed and lead plant-based laboratory, Fall 2008, 2010
- BIOL 499: *Introduction to Honors Research*, Spring 2016, 2018, 2020
- BIOL 599: *Senior Seminar in Ecology and Evolutionary Biology*, Fall 2007
- BIOL 603: *Systematic Botany*, evaluated student final project presentations, Spring 2007
- BIOL 801: *Core Concepts in EEB Research*, Spring 2011, 2016, 2019, 2020, 2021, 2022
- BIOL 805: *Scientific Integrity*, Fall 2020

BIOL 950: *Evolutionary Mechanisms*, Fall 2011

EECS730: *Introduction to Bioinformatics*, advised on student project development, Fall 2007

POSTDOCTORAL RESEARCHERS MENTORED

2025-present Dr. Samson Acoca-Pidolle, supported by NSF grant to LCH.

2021-2024 Dr. Irene Liao, NSF Postdoctoral Fellow, co-mentored by Dr. Lachezar (Luke) Nikolov at U.C. Los Angeles. Dr. Liao is primarily situated at UCLA.

2020-2022 Dr. Hannah Kinmonth-Schultz. *Serving as mentor after Joy Ward left KU*

2018 Dr. Vibhuti Singh, SERB Indo-US Postdoctoral Fellow. Current position: Assistant Professor, Department of Botany, Swami Shraddhanand College, University of Delhi.

2013-2019 Dr. Carolyn Wessinger, NIH-NRSA Postdoctoral Fellow (2014-17). Current position: Assistant Professor, Department of Biology, University of South Carolina.

2007-2012 Dr. Jill Preston. Current position: Associate Professor, Department of Plant Biology, University of Vermont.

GRADUATE STUDENTS WHOSE COMMITTEE I HAVE CHAIRED

2025-present Theo Scheiner (MA candidate EEB, KU)

2023-2025 Taylor Michael (MA from EEB, KU)

2019-present Haylee Nedblake (PhD candidate EEB, KU)

2017-2024 Amanda Katzer (PhD from EEB, KU). Postdoc position: NIH

2021-2023 Noelle Schlenk (MA from EEB, KU). Technician: Stanford University

2020-2022 Aleah Henderson (PhD candidate EEB, KU). Postdoctoral position: UT Austin. *Serving as chair after Joy Ward left KU*

2019-2021 Taryn Dunivant (MA from EEB, KU). PhD candidate at UC Irvine

2012-2019 Aniket Sengupta (PhD from EEB, KU). Postdoctoral position: St. John's University (2019-present)

2011-2016 Jack Colicchio (PhD from EEB, KU). Postdoctoral position: U.C. Berkeley (2016-2021). Research Scientist: Sound Agriculture (2021-present)

2009-2011 Jacob Landis (MA from EEB, KU). PhD: University of Florida (2016). Postdoctoral Fellow: U.C. Riverside/Cornell (2016-2020). Lecturer: Cornell (2020-present)

GRADUATE STUDENTS ON WHOSE COMMITTEE I HAVE SERVED

2024-present Zane Walker (PhD candidate, EEB, KU)

2023-present Austin Nguyen (PhD candidate, EEB, KU)

2023-present Askhan Shametov (PhD candidate, EEB, KU)

2022-present Arezoo Fani (PhD candidate, EEB, KU)

2021-present Keana Tang (PhD candidate, EEB, KU)

2021-present Trinity Depatie (PhD candidate, U. of South Carolina, required external member)

2021-present Blanca Rodriguez (PhD candidate, MB, KU)

2022-2024 Marlon Cobos (PhD from EEB, KU)

2021-2024 Tokee Tareq (MA from EEB, KU)

2020-2022	Shane Carey (PhD from U. of Alberta; external examiner)
2020-2022	Alex Martin (MA from EEB, KU)
2019-2024	Matthew Traver (PhD candidate EEB, KU)
2017-2022	Snehal Sudhakar Mahadik (PhD from MB, KU)
2017-2024	Javier Torres Lopez (PhD candidate EEB, KU)
2016-2022	Pietro Longo Hollanda De Mello (PhD from EEB, KU)
2016-2020	Jesse Holmes (MA from EEB, KU)
2019-2020	Timothy Burnette (MA from EEB, KU)
2019-2020	Jenn Klaus (PhD from MB, KU)
2015-2020	James Fischer (PhD from EEB, KU)
2014-2019	Keely Brown (PhD from EEB, KU)
2014-2018	Laryssa Barnett (PhD from Biology, Duke University)
2012-2018	Alexandra Erwin (PhD from EEB, KU)
2010-2018	Michael Walker (PhD from EEB, KU)
2010-2016	Patrick Monahan (PhD from EEB, KU)
2011-2014	Chen Xi (MA from EEB, KU)
2011-2013	Elizabeth Chang (MA from EEB, KU)
2010-2012	Iera Chatterjee (PhD candidate EEB, KU – left without degree)
2007-2012	Robert Baker (PhD from EEB, University of Colorado)
2006-2013	Laci Gerhart (PhD from EEB, KU)
2006-2012	Annalise Nawrocki (PhD from EEB, KU)
2007-2011	Julius Mojica (PhD from EEB, KU)
2006-2009	Liang Zhang (PhD from MB, KU)
2006-2007	Katarina Topalov (MA from EEB, KU)

POST-BACCALAUREATE STUDENTS MENTORED/CO-MENTORED

2025-present	Frances Szaraz: NSF program, BioGEMS fellow.
2024-2025	Brooklyn Anaya: NSF program, BioGEMS fellow. Accepted to PhD program KU MB for Fall 2025. Co-mentored with John Kelly.
2008-2009	Ciera Martinez: Post-baccalaureate Research Enhancement Program (PREP) Fellow. PhD: U.C. Davis (2016). Postdoctoral Fellow: U.C. Berkeley (2016-2020). Research Lead of Biodiversity and Environmental Data Science, Berkely Institute for Data Science (2020-present). Cell Mentor named her a “Rising Star among 100 of the most inspiring Hispanic/Latinx scientists in the U.S.” (2020).

UNDERGRADUATES MENTORED

(Independent projects related to, or direct contributions to LCH's research program)

2025-present	Cynee' Baron, assistant to graduate student research.
2025-present	Elizabeth Mays, assistant to graduate student research, independent research.

2024-present	Grace Friedrichs, independent Research
2024-present	Jim Krentzel, assistant to graduate student research, independent Research
2023-2024	Analín Escalante Pablo, KU Emerging Scholars Program
2023-present	Aspen Thomas, KU BESST program, independent research
2021-present	Aphid Sylvester, KU Emerging Scholars Program, assistant to graduate student research
2021-2024	Percy Macek, assistant to graduate student research
2022-2023	Meghan Tidwell, Independent Research
2021-2023	Kate Oppold, assistant to graduate student research, Independent Research
2021-2023	Jack Ross, Independent Research
2020-2021	Noelle Schlenk, Honor's Thesis research
2019-2020	Alex Martin, Independent research
2019	Alexis Ramos, McNair Scholars Program, Independent research
2017-2019	Natacha Namphengsone, McNair Scholars Program, Independent research
2017-2018	Karla Arias-Ramos, KU Emerging Scholars Program
2017	Hester Hall, KU-EEB summer REU program
2017	Mara Schlichting, Initiative to Maximize Student Diversity, independent research
2016-2017	Jonathon Russell, Independent research
2016-2017	Kristen Manion, Initiative to Maximize Student Diversity, independent research
2015-present	Nicolas Nolte, Independent study and undergraduate researcher
2015-2016	Nizhoni Woodie, Haskell University Bridge Program and KU-EEB summer REU program
2015	Anatole Telegin, KU-EEB summer REU program
2014-2015	Jesse Kaighin, Independent study and undergraduate researcher
2013-2015	Sukhindervir Sandhu, Honor's thesis project
2014	Alayna Mead, KU-EEB summer REU program
2014	Alexander Langley, Undergraduate researcher
2012-2014	David Stone, Independent study and undergraduate researcher
2013	Taylor Blodgett, Undergraduate researcher
2010-2013 (2015)	Kima Scott, Independent study and undergraduate researcher
2011	Alejandra Rodriguez, Haskell University Bridge Program
2009-2011	Elijah Burton, Independent study and undergraduate researcher
2010	Jessica Doidge, undergraduate researcher
2010	Ashley Stiffarm, Haskell University Bridge Program
2010	Tim Muetz, undergraduate researcher
2009-2010	Kory Kirkegaard, Independent study and undergraduate researcher
2009	Michelle Metzger, Independent study through KU Office for Diversity in Science

	Training
2009	Nicole Nebitsi, Haskell University Bridge Program
2008-2009	Nathan Oborny, Independent study and undergraduate researcher
2008	Jared Suppasansathorn, Independent study
2006-2008	Fikri Birey, Honor's thesis project
2006-2007	Laryssa Barnett (née Baldrige), Independent study and undergraduate researcher, technician in my lab 2007-2010
2006	Gizem Tel, 2006, Independent study
2006	Brett Thompson, Independent study
2005-2006	Matthew Kost, Independent study and undergraduate researcher, technician in my lab 2006-2008.

HIGH SCHOOL STUDENTS MENTORED

2024-present Mira Vadaparampil

VISITING SCIENTISTS

2013 Dr. Talline Martin, Postdoctoral fellow in the lab of Dr. Mark Rausher (1 month). Supported by NSF-funded microMORPH travel grant to TM.

2012 Dr. Ben Blackman, Postdoctoral fellow in the lab of Dr. John Willis. (1 month). Supported by NSF-funded microMORPH travel grant to BB.

2011 Diana Acevedo, MA candidate, Dept. of Biology, Emporia State University (Summer). Supported by NSF-funded microMORPH travel grant to DA.

2007 Robert Baker, PhD candidate EEB, University of Colorado (1 month). Supported by NSF-funded MORPH travel grant to RB.

2006 Dr. Tingshuang Yi, Postdoctoral fellow in the lab of Dr. Susan Kalisz (2 months). Supported by NSF-funded MORPH travel grant to TY.

PROFESSIONAL SOCIETIES

Botanical Society of America, American Association for the Advancement of Science

PROFESSIONAL SERVICE

Editorships and Editorial Boards

2013-present *New Phytologist*, editorial board member

2009-2012 *Molecular Phylogenetics and Evolution*, associate editor

Promotion and tenure external evaluations

Promotion to Associate with tenure: six evaluations

Promotion to Full: three evaluations

Program reviews

2024 *External program review committee, EEB at Univ. Tennessee, Knoxville*

2023-present *Advisory board member, Genomics Intensive Data Science Research, Education and Mentorship (GIDS-REM) Master's program at University of Rochester*
(<https://www.hajim.rochester.edu/dsc/graduate/ms-genomics.html>)

Society positions

2022-present *Botanical Society of America, Structure and Development Section*, treasurer.
2023 *Botany 2023, Moseley Student Talk Award Committee/Judge*.
2022 *SACNAS 2022, Student Poster Award Committee/Judge*.
2021-2023 *Botanical Society of America*, Kaplan award review panel (chair, 2022-23).
2018-2022 *Botanical Society of America, Structure and Development Section*, program officer.

Colloquia/workshop organizing

2020 *Botanical Society of America*, co-organized colloquium on “The Biology of Nectar, Nectaries and Nectar Spurs”

Grant review panels

2007-present five panels, in both IOS and DEB at NSF.
2022-present NIH Training Workforce Development C (TWD-C) study group

Grants reviewed (not including grants reviewed as a panel member)

National Science Foundation (18), North Carolina Biotechnology Center (1), Alberta Ingenuity Fund (1), Human Frontiers of Science (1), Katholieke Universiteit Leuven, Netherlands (1), Bi-national Agricultural Research and Development Fund: US/Israel (1), The Ohio Plant Biotechnology Consortium (1), National Swiss Science Foundation (2), German Research Foundation (1) The Austrian Science Fund (1)

Journal articles reviewed

American Journal of Botany (11), *Applications in Plant Science* (1), *Annals of Botany* (7), *Botanical Journal of the Linnean Society* (1), *BMC Evolutionary Biology* (3), *BMC Genomics* (2), *BMC Plant Biology* (3), *Development Genes and Evolution* (1), *Evolution* (2), *Evolution and Development* (2), *Frontiers in Plant Science* (1), *G3* (1), *Gene* (4), *Genetica* (1), *Genetics* (1), *Genetics Research International* (1), *Heredity* (3), *International Journal of Molecular Sciences* (2), *International Journal of Plant Developmental Biology* (1), *International Journal of Plant Science* (9), *Journal of Evolutionary Biology* (1), *Journal of Experimental Botany* (1), *Journal of Heredity* (1), *Journal of Integrative Plant Biology* (2), *Journal of Systematics and Evolution* (1), *Molecular Biology and Evolution* (8), *Molecular Ecology* (2), *Nature Communications* (2), *New Phytologist* (29), *Peer J* (1), *The Plant Journal* (6), *Plant Cell* (6), *Plant Molecular Biology* (2), *Plant Physiology* (9), *PLOS One* (3), *Proceedings of the National Academy of Sciences - USA* (4), *Science Advances* (2), *Seminars in Cell and Developmental Biology* (1), *Theoretical and Applied Genetics* (1), *Trends in Plant Science* (2), *Trends in Ecology and Evolution* (1).

Book chapters reviewed

Rancho Santa Ana Botanic Garden, Claremont, California, U. S. A. (1)

COLLEGE AND UNIVERSITY SERVICE

2025-present Committee member, KU council of academic leaders
2025-present Committee member, Research SCOPE, KU Office of Research
2024 (Fall) Interim Director, KU Center for Genomics (Director, Robert Unckless on Sabbatical)
2024 OGS/OFA Mentoring Focus Group participant
2023-2024 Research Rising Molecular Biosciences Genomics Search Committee, external member, 3 positions filled.

2024-2025	Faculty Development Advisory Board member (Office of Faculty Affairs, optimize faculty career development plans at KU)
2022-2025	CLAS chairs and directors advisory board member
2021-present	Steering Committee Member, KU Center for Genomics
2023	Led <i>KU Move and Learn</i> visit to greenhouses
2022	Chair, 5-year review committee, Biodiversity Institute KU
2022	Panelist, KU Thesis/Dissertation Accelerator Faculty Roundtable
2019-2021	CLAS REI review panel
2019	CLAS advisory board annual meeting participant (research tour)
2017	CLAS faculty mentor to at risk undergraduates
2015-2018	CLAS Committee on Undergraduate Studies and Advising (CUSA)
2010	KU Scholar Day Program. Attended recruitment lunch with high-achieving high school students and parents (10/6/10).
2008-2020	CLAS Academic Misconduct Committee

DEPARTMENTAL SERVICE

2025-present	EEB committee to develop & update faculty evaluation documents
2021-2024	EEB By laws committee
2020-present	EEB annual faculty evaluation committee
2019-2021	Chair, BIO3 Seminar committee
2019	EEB search committee, Plant Physiology
2019	Chair, EEB search committee, departmental chair
2018-2019	EEB P&T committee
2018-2019	EEB search committee, Paleobotany
2017	EEB executive committee member
2017	EEB graduate executive committee member
2016-2017	EEB infrastructure committee
2015-2016	EEB committee to publicize scholarly productivity
2014-2017	Chair, EEB Graduate Admissions Committee
2014-2015	EEB Senior faculty mentor to Dr. Jamie Walters
2013-2014	EEB Strategic Planning Committee
2012-2014	EEB Website Committee
2010	EEB Search committee, Research Assistant for Dr. Justin Blumenstiel
2010	EEB Search committee, Research Assistant for Dr. Paulyn Cartwright
2009-2014	EEB Graduate Admissions Committee
2009-2010	EEB Junior faculty mentor to Dr. Andrew Short
2008-2009	EEB Seminar Series Committee
2006-2007	EEB External Review Committee

2006-2008	EEB Bylaws Committee
2005-2006	EEB Undergraduate Education and Research Committee
2005	EEB Research presentation to the Biology Alumni Board
2005	EEB Search committee, Research Assistant for Dr. Pauly Cartwright

OUTREACH

SACNAS recruitment, October, 2020, 2022, 2023.

Plants and planet workshop for 6th grade Girl Scout troop 7610 (ca. 15 Girl Scouts). West Middle School, Lawrence, KS. September 2017.

Plant-pollinator interactions workshop for 1st graders (ca. 80 students) at Deerfield Elementary School, Lawrence, KS. April 2016.

Biology of Flowers workshop for 4th grade Girl Scouts troop 7610 (ca. 15 Girl Scouts). Deerfield Elementary School, Lawrence, KS. November 2015.

Career shadowing to students interested in science/biology research careers from Southwest Junior High School, Lawrence, KS. March 2010.

Mentor for Biology and Plant Science Careers at the Annual Society for the Advancement of Chicanos and Native Americans in Science Conference, Kansas City, MO. October 2007.

Advised on a High School science Project, *The genetic basis for differences in density of stomata across a population of Populus*. Shawnee Mission West High School, Overland Park, KS. Teacher: Brenda Bott, Students: Hannah Crooke and Adam Lundine. 2006-07.

Co-organizer, with Dr. Rafe Brown, KU Evolutionists club, Lawrence, KS. 2006.