

A. KELLY LANE
CURRICULUM VITAE

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EDUCATION

University of Georgia	Genetics	Ph.D., Expected May 2018
Washington and Lee University	Biology, Classics	B.Sc. & B.A. 2013

PUBLICATIONS

Submitted Publications

5. Lane, A.K., Augustin M.A., Ayyampalayam S., Plant A., Gleissber, S., Di Stilio V., dePamphilis C. W., Wong G.K., Kutchan T.M, Leebens-Mack J.H. Phylogenomic Analysis of the Ranunculales Resolves Branching Events Across the Order. Revisions sent to Botanical Journal of the Linnean Society.

4. Lane, A.K., Harding, L., Five minute teach: instructional design to support TA training and writing instruction in the sciences. Revisions sent to Journal of College Science Teaching

Peer-Reviewed Publications

3. Vienneau-Hathaway, J., Brassfield, E., Lane, A.K., Collin, M., Correa-Garwal, S., Clarke, T. H., Scwager, E., Gard, J. E., Hayashi, C. Y., Ayoub, N.A. 2017. Duplication and concerted evolution of MiSp-encoding genes underlie the material properties of minor ampullate silks of cobweb weaving spiders. *BMC Evol. Bio.* 17:78

2. Lane, A.K., Niederhuth, C.E., Ji, L., Schmitz, R.J. 2014. pENCODE: A Plant Encyclopedia of DNA Elements. *Annu. Rev. Genet.* 48:49-70

1. Lane, A.K., Hayashi, C., Whitworth, G., Ayoub, N. 2013. Complex gene expression in the dragline silk producing glands of the Western black widow (*Latrodectus hesperus*). *BMC Genomics.* 14:846

Creative Products

Armstrong, N., Brickman, M., Gormally, C., **Lane, A.K.**, Miller, K., *BIOL 1103L: Concepts of Biology.* 6th ed., Blue Door Publishing, 2017.

TEACHING EXPERIENCES

Classroom Teaching

WIPP 7001: Writing Intensive Pedagogy for Biology TAs 2016-2017

Instructor of Record, 2 semesters, 3 total sections

Taught graduate students writing pedagogy to prepare them for teaching the writing intensive introductory biology lab courses. I designed and taught all classes with guidance from the director of the Writing Intensive Program Dr. Lindsey Harding.

GENE 3200: Introduction to Genetics Summer 2016

Teaching Assistant, 1 semester, 1 total section

Taught one section of recitation, which involves leading students through practice problems, as well as proctored and graded exams.

Genomics Guest Lecturer at Hampden Sydney College 2016

1 course period

I assisted in an undergraduate genomics class for a single lecture

BIO 1103L: Introductory Biology Lab for Non-Majors 2015-2016

Teaching Assistant, 2 semesters, 6 total sections

In this course I was responsible for three sections of lab each semester. This involved teaching all classes as well as all grading, student meetings, and feedback.

Programming Materials and Course Design

Module for 1103Le 2017

Provided feedback and assisted in developing a module for a new online version of Introductory to Biology Lab for non-majors under the mentorship of Dr. Kris Miller, head of the Division of Biological Sciences at UGA.

Online Five Minute Teach, Writing Database 2017

Developed an online database through the Writing Intensive Program at UGA to host materials for 5 minute teaches on writing in the sciences. This database is available for use by anyone. The materials hosted are 5-minute lessons designed by graduate lab assistants for use in their writing intensive classes. The database is still being used and populated.

Yearly program and TA evaluation for the Writing Intensive Program 2016-2017

Part of my teaching assistantship was to collect and summarize teaching and course evaluations each semester for all GTAs that are part of the Writing Intensive Program at the University of Georgia.

This represents over 25 courses. I compiled summary data for each course and each GTA as well as created summary reports for various campus offices.

Rewrite of 1103L manual 2016

I assisted in editing and developing new materials for the lab manual, which is the only required text, for Introductory Biology Lab for non-majors under the guidance of Dr. Kris Miller, head of the Division of Biological Sciences at UGA. My work resulted in publication of a new edition.

Pedagogical Training

I have taken courses in general pedagogy for teaching assistants, writing intensive pedagogy and a class in course design, each for three credits. I additionally regularly attend biology education research group meetings. I have attended workshops on topics including the scholarship of teaching and learning, writing effective multiple-choice questions, and more.

Mentoring

- Aug. 2016 -
May 2017 Mentor for two undergraduate researchers in Biology Education research mentored in qualitative research, writing and experimental design
- May –
July 2016 Mentor for a REU summer undergraduate student in Biology Education research mentored in qualitative research and poster presentation
- Sept. 2014, 15 Plant Center Mentor.
prepared undergraduates to give poster presentations at the UGA Plant Center Retreat
- Oct. 2013 – 14 Supervising and training four undergraduate students in basic laboratory techniques e.g. PCR, plant care

PRESENTATIONS

Invited Presentations

- Nov. 2017 *Leveraging Comparative Transcriptomics to Reveal Evolution and Regulation of Morphine Biosynthesis in Opium Poppy (Papaver somniferum)*
Departmental Seminar, Washington and Lee University, Lexington, VA
- Sept. 2016 *Evolution of the Ranunculales and Implications for Morphine Biosynthesis*
Departmental Seminar, Hampden Sydney College, Farmville, VA

Presentations

- Aug. 2017 *Exploring benefits and limitations of combining transcriptomic data for WGCNA in order to answer questions related to morphine biosynthesis*
Plant Biology Fall Symposium, Athens, GA
- Jul. 2017 *Building a model of how life science doctoral training can influence professional identity as a college teacher*
SABER, Minneapolis, MN
- May 2017 *Building a model of how life science doctoral training can influence professional identity as a college teacher*
SEER Center, Athens, GA – Pecha Kucha style presentation
- Aug. 2016 *Weighted Gene Correlation Network Analysis of Morphine Biosynthesis in Opium Poppy (Papaver somniferum)*
Botany, Savannah, GA

- Jun. 2016 *Phylogenomics of the Ranunculales with Resolution of the Papaveraceae*
Evolution, Austin, TX
- Jun. 2016 *Professional Identity Among Teaching Interested Graduate Students*
UnPAK grant meeting, Austin, TX
- July 2012 *Massively parallel signature sequencing reveals novel genes associated with silk*
production in the Western black widow, Latrodectus hesperus
American Arachnological Society conference, Green Bay, WI
- Posters**
- Nov. 2015 *Phylogenomic Analysis of the Basal Eudicots, Ranunculales*
Plant Center Fall Retreat, Helen, GA
- Mar. 2015 *Phylogenomic Analysis of the Basal Eudicots, Ranunculales*
Southeastern Ecology and Evolution Conference, Athens, GA
- July 2010 *Building a transcriptome for the Western black widow, Latrodectus*
hesperus (Araneae, Theridiidae), American Arachnological Society conference,
Greenville, NC

AWARDS

- 2017 Kirby and Jan Alton Graduate Fellowship (~\$28,000), one year of funding given to a senior graduate student in the Genetics Department based on research accomplishments.
- 2017 Mary E. Case Award for Excellence in Teaching (\$1000) given by the Genetics Department
- 2017 Three Minute Thesis Genetics Department, Second Place
- 2017 Nominated by the Biology Division for the Excellence in Teaching Award at UGA, approximately 1% of GTAs are nominated each year.
- 2017 Received the Outstanding Teaching Award at UGA
- 2016 Three Minute Thesis UGA Finalist, Top 10 out of ~70 campus-wide
- 2016 Department of Genetics Travel Award, Graduate student judged award for travel funding. Used to attend Evolution 2016.
- 2015 NSF GRFP Honorable Mention
- 2013-2015 Graduate School Assistantship (GSA). (\$42,000) two year stipend from the graduate school, nomination is submitted by the academic department upon admission and sent to the graduate school for consideration

- 2013 Excellence in Graduate Recruitment Fund (EGRF) (\$3,000). given to an applicant to the Genetics Dept. at UGA to assist attracting top recruits into the program
- 2013 Washington and Lee University Biology Department Research Award. Annual award given to the senior student who has best demonstrated a serious commitment to scientific discovery through participation in research
- 2009-2013 Johnson Scholar. (\$200,000) full cost of attendance, four-year merit scholarship

OUTREACH AND SERVICE

- 2016 & 2017 Invited to serve on a panel of graduate students with advanced teaching experience for three different events 1) classroom panel 2) departmental panel 3) campus-wide teaching symposium panel
- 2016 & 2017 Served on the review panel for the Genetics Graduate Student Association Travel Award for presenting dissertation research
- 2017 Served on the hiring committee for two introductory biology, lecturer positions
- Jun. 2016 - May 2017 First Graduate Student Chair for Scientists Engaged in Education Research
In the inaugural year of the SEER Center at UGA I was selected as chair for the graduate student committee, which involved managing membership, designing organization structure, goals, and events.
- May 2016- Apr. 2017 Pi Beta Phi Athens Area Alumnae Club President
organized club activities, managed membership, ran social media, managed the executive team, assured club was following procedures, and etc.
- Jan. 2015, 16, 17 Paper reader/judge for Georgia Junior Science and Humanities Symposium
judged paper submissions for the symposium
- Mar. 2014, 15, 16, 17 Georgia Science and Engineering Fair State Finals Judge
judged the Junior High Plant Sciences category, category leader in 16,17
- Jan. 2017 Judge for the Clarke County School District Science & Engineering Fair
High School level
- Jan. 2017 Judge for the Oconee County District Science Fair
- July 2015 - Dec. 2016 Managing Editor for The Classic Journal for the Writing Intensive Program
review, edit, and select undergraduate student writing for publication in a UGA sponsored, online journal <http://theclassicjournal.uga.edu>
publicize and develop materials
- May 2016 UGA Plant Center Joe Key Symposium Volunteer
organized and solicited donations for silent auction
- Aug. 2015 - Genetics Graduate Student Association Secretary

May 2016 Took meeting minutes, sent reminder emails, organized voting for next board

Jun. 2015 - Pi Beta Phi Athens Area Alumnae Club Executive Board Member
May 2017 17-18 Secretary
15-16 Alumnae Club Recruitment Information Chair

Nov. 2014 Volunteer for Bioenergy Day at UGA
assisted in running activities for seventh graders to learn about bioenergy