

EMILY McLEAN

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EDUCATION

- 2011-2018 **Duke University** (Durham, NC)
Ph.D., Genetics and Genomics (Advisor: Susan Alberts)
Certificate in College Teaching
Thesis: Life history tradeoffs and genetic variation for social behaviors in a wild primate population.
- 2007-2009 **University of North Carolina, Greensboro** (Greensboro, NC)
M.S, Biology (Advisor: Olav Ruepell)
*Thesis: Comparison of marker order and recombination between *Apis mellifera* and *Apis florea*.*
- 2003-2007 **Bryan College** (Dayton, TN)
B.S., Biology, Minors in Mathematics and History, *magna cum laude*

PROFESSIONAL APPOINTMENTS

- 2018-present **Assistant Professor of Biology**, Oxford College of Emory University
Department of Biology
- 2011-2018 **Graduate Student and Teaching Assistant**, Duke University
Department of Biology; University Program in Genetics and Genomics
- 2009-2011 **Lab Manager and Research Technician**, University of Notre Dame
Department of Biological Sciences
- 2007-2009 **Graduate Student (M.S.) and Teaching Assistant**, University of North Carolina –
Greensboro; Department of Biology

COURSES TAUGHT

- 2018 **Instructor of Record**, Cell Biology and Genetics; Concepts of Biology for Non-Majors;
Supervised Readings
Oxford College of Emory University
- 2017 **Instructor of Record**, Genetic Basis of Behavior
Duke University
- 2016 **Independent Study Instructor**, Statistics for Biologists
Duke University
- 2015 **Teaching Assistant and Guest Lecturer**, Evolution of Animal Behavior
Duke University
- 2014-2015; **Teaching Assistant and Laboratory Instructor**, Genetics and Evolution

- 2017 Duke University
- 2013 **Mini-term Instructor**, Microbial Growth and Gene Regulation
North Carolina School of Science and Math
- Team-taught a two week course to 15 advanced high school students
- 2008-2009 **Teaching Assistant and Laboratory Instructor**, Introductory Biology II: Evolution and Ecology
University of North Carolina-Greensboro
- 2007-2009 **Teaching Assistant and Laboratory Instructor**, Introductory Biology I: Cell Biology and Genetics
University of North Carolina-Greensboro

TEACHING DEVELOPMENT

- 2015-2017 **Certificate in College Teaching**
The Graduate School, Duke University
- GS 755: College Teaching and Course Design: Methods of course design and syllabus construction. Assessment metrics and practical steps for teaching a new course
 - GS 760: College Teaching and Visual Communication: Design principles for effective visual communication
 - GS 770: Topics in Higher Education: Engaging in the academic environment as a productive, collaborative colleague
- 2012 **Workshop**: “Communicating With the Other 99% of the Sordl”
National Science Foundation
- 2012 **Workshop**: “Speaking for the Audience’s Perspective”
Women in Science and Engineering, Duke University
- 2009 **Courses in Pedagogy** (not degree associated)
The School of Education, University of North Carolina Greensboro
- CUI 669: Educational Implications of Learning and Development Theory: Designed to facilitate the application of child and adolescent development theory to motivation and learning in the classroom.
 - CUI 545: Diverse Learners: Designed to prepare future teachers to meet the needs of diverse learners through appropriate instructional, curricular and behavioral strategies.
 - CUI 535: Literacy in the Content Area: Designed to prepare biology teachers to develop and implement inquiry-based lessons for secondary students.

PUBLICATIONS

- Accepted **McLean, E.**, Archie, E., Altmann, J., Alberts, S. “Lifetime Fitness in Wild Baboons: directional selection and limited evidence for tradeoffs.” *The American Naturalist*
- 2015 Franz, F., **McLean, E.**, Tung, J., Altmann, J., Alberts, S. “Self-organizing dominance hierarchies in a wild primate population.” *Proceedings of the Royal Society B*. **282**:20151512

- 2011 **McLean, E.**, Kinsella, J.M., Chiyo, P., Obanda, V., Moss, C., and Archie, E. "Genetic Identification of Five Strongyle Nematode Parasites in Wild African Elephants (*Loxodonta africana*). *J. Wildlife Diseases*. **177**:7-14.
- 2010 **Meznar, E.** Gadau, J., Koeniger N., and Rueppell O. "Comparative Linkage Mapping Suggests a High Recombination Rate in All Honey Bees." *J. Heredity*. **101**:S118-S126.

MANUSCRIPTS IN PROGRESS

- In prep Heritability, indirect genetic effects and the evolution of social affiliation. **McLean, E.**, Archie, E., Altmann, J., Alberts, S.
- In prep Genetic effects on agonistic social behavior. **McLean, E.**, Altmann, J., Alberts S.

INVITED TALKS AND PODIUM PRESENTATIONS

- 2015 **McLean, E.**, Altmann, J., and Alberts S. "Life History, Selection and Heritability in Wild Baboons." *Genetics and Genomics Retreat*. Duke University, NC.
- 2014 **McLean, E.** Moorad, J., Altmann, J., and Alberts S. "Genetic Variation for life history and social behaviors in wild baboons." *Behavioral Ecology Group*. University of Edinburgh, Scotland.
- 2009 **Meznar, E.**, and Rueppell O. "Comparison of marker order and recombination rate between *A. mellifera* and *A. florea*." *Entomological Society of America Annual Meeting*, Indianapolis, IN.
- 2009 **Meznar E.** and Rueppell, O. "Comparison of marker order and recombination rate between *Apis mellifera* and *Apis florea*." *4th Annual North Carolina Honey Bee Research Consortium Meeting*, Winston-Salem, NC.
- 2008 **Meznar E.** and Rueppell, O. "Cross-species amplification of *Apis mellifera* (honeybee) microsatellites." *North Carolina Academy of Science Meeting*, Greensboro, NC.
- 2008 **Meznar, E.** and Rueppell, O. "Intra- and interspecific variability of recombination rate in *Apis*." *Bi-annual Meeting of the International Union for the Study of Social Insects, North American Section*, Arecibo, PR.

POSTER PRESENTATIONS

- 2014 **McLean, E.**, Altmann, J., and Alberts S. "Genetic variation for age at sexual maturity in wild baboons." *Evolution*. Raleigh, NC. (Poster Presentation)
- 2013 **McLean, E.**, Franz, M., Altmann, J., and Alberts, S. "Evaluation and utilization of Elo-Rating in a population of wild baboons." *Annual Meeting of the Animal Behavior Society*. Boulder, CO. (Poster Presentation)
- 2009 Rueppell, O. and **Meznar, E.** "Intra- and inter-specific variation of high recombination rates in the genus *Apis*." *International Conference on the Evolution of Sex and Recombination*, Iowa City, IA. (Poster Presentation)

GRANTS, AWARDS AND FELLOWSHIPS

2017	Bass Instructor of Record Teaching Fellowship (\$23000)
2016	Duke Biology Department Research Fellowship (\$23000)
2015	National Science Foundation Dissertation Improvement Grant (\$20515)
2015	Leakey Foundation Research Grant (\$14155)
2014	Duke Graduate School Conference Travel Award (\$1000)
2014	Duke Graduate School Dissertation Research Award (\$2000)
2013	Duke University Data Visualization Contest, Third Place (\$100)
2013	University Program in Genetics and Genomics Travel Fellowship (\$300)
2012	Sigma-Xi Grant-in-Aid of Research (\$300)
2010	Entomological Society of America President's Prize: <i>Second-place award for presentation in the Molecular Diversity category at the national meeting</i>
2009	UNCG Graduate Research Funding (\$1500)
2008	UNCG Summer Research Assistantship (\$1500)

INSTITUTIONAL SERVICE

2013-2015	Executive Student Co-Chair University Program in Genetics and Genomics University Program in Genetics and Genomics, Duke University
2013	Committee Member , Gorden G. Hammes Teaching Award Selection Committee School of Medicine, Duke University
2011-2015	Committee Chair , Retreat Planning Committee University Program in Genetics and Genomics, Duke University
2011	Committee Member , Events Committee University Program in Genetics and Genomics, Duke University

UNDERGRADUATE STUDENTS SUPERVISED FOR INDEPENDENT RESEARCH

2017	Jaimie Karl: Freshman at Duke University, now Junior at Duke University
2017	Yingying Lin: Post-baccalaureate research assistant, now at University of Connecticut Dental School
2015	Ethan Dougherty: Post-baccalaureate research assistant, now graduate student at University of Florida
2015	Llana Abella: High school student, now undergraduate at University of North Carolina Chapel Hill
2012	Molly Kuo: Junior at Duke University, now MD/PhD student at University of Michigan
2012	Colby Shanafelt: Junior at Duke University, now at University of Pittsburg Medical School
2010	Edward Kim: Junior at University of Notre Dame, now Obstetrics/Gynecology Resident at John Hopkins
2010	Anjelica Ngyuen: Junior at University of Notre Dame
2010	Danielle Guilfoyle: Sophomore at the University of Notre Dame, now veteraniarian at The Med-Atlantic Equine Center
2010	Tyler Gauger: Sophomore at the University of Notre Dame, now Oral Surgery Resident at Indiana University Health

2008 **Ashley Hayes:** Sophomore at University of North Carolina-Greensboro, now Senior Scientist at Roche Sequencing

SELECT PUBLIC OUTREACH AND COMMUNITY SERVICE

2015 *CSI: Baboonland Presentation, **Carolina Friends Middle School**, Durham, NC*
2013 **Science Outreach Volunteer**, *Brogden Middle School; Durham, NC*
2012 *CSI: Baboonland Presentation, **Carolina Friends Middle School**, Durham, NC*
2008 *The Buzz about Social Insects, **Watauga County High School**, Boone, NC*
2009 *Find the Queen, **Bur-Mill Park Fall Festival**, Greensboro NC*
2009 **Exhibit Development Consultant**, *Natural Science Center; Greensboro, NC*
2009 **High School Tutor**, *Ben L. Smith High School; Greensboro, NC*