

Elizabeth A. Archie

Department of Biological Sciences
University of Notre Dame
Notre Dame, IN, 46556

Phone: (574) 631-0178; Email: earchie@nd.edu

<http://sites.nd.edu/archielab/>

<http://amboselibaboons.nd.edu/>

HIGHER EDUCATION

Ph.D. Biology, Duke University, Durham, NC (2005)
B.A. Biology, Bowdoin College, Brunswick, ME (1997)

APPOINTMENTS

2021-present Professor, University of Notre Dame, IN
2015-2021 Associate Professor, University of Notre Dame, IN
2019-2020 Assistant Chair, Department of Biological Sciences, University of Notre Dame
2009-2015 Clare Boothe Luce Assistant Professor, University of Notre Dame, IN
2008-2009 Assistant Professor, Fordham University, NY
2007-2008 Postdoctoral Associate, University of Montana, Missoula, MT
2005-2007 Postdoctoral Fellow, Smithsonian National Zoo, Washington, DC

AWARDS AND FELLOWSHIPS

2010 National Science Foundation, CAREER award
2009 Clare Boothe Luce Assistant Professorship
2006 Friends of the National Zoo Postdoctoral Fellowship Award
2005 Smithsonian Postdoctoral Fellowship Award
2005 SPIRE Postdoctoral Fellowship Award (declined)
2004 Duke University Bass Advanced Instructorship
2003 Preparing Future Faculty Fellow, Duke University
2000 Duke University Biology Department Grant In Aid of Research
2000 Sally Hughes-Schrader Travel Grant
1997 Copeland-Gross Biology Prize, Bowdoin College

GRANTS AND AWARDS

Awarded external funding

2021-2026 R01, National Institutes of Health, National Institute on Aging. *A life course perspective on gut microbiome aging and health in a non-human primate model.* Role: PI (Co-PIs: Susan Alberts, Sayan Mukherjee).

2017-2022 R01, National Institutes of Health, National Institute on Aging. *A life course perspective on the effects of cumulative adversity on health.* Role: PI (Co-PIs: Susan Alberts, Fan Li).

2018-2021 National Science Foundation. *Rules of Life: FELLS: RAISE: Does everyone's microbiome follow the same rules?* Role: PI (Co-PIs: Jack Gilbert, Sayan Mukherjee;)

2017-2020 R21, National Institutes of Health, National Institute on Aging. *A prospective, longitudinal perspective on gut microbiome aging and health in a non-human primate model.* Role: PI (Co-PI: Ran Blekhman)

2014-2015 National Science Foundation, Division of Environmental Biology. *Symposium: Animal Behavior and Disease Ecology: Past, Present, and Future.* Role: Co-PI (PI: Vanessa Ezenwa)

2011-2017 National Science Foundation CAREER Award, Division of Integrated Organismal Systems. *Understanding socially-structured transmission of infectious agents in wild baboons.* Role: PI)

PUBLICATIONS

Key to references

underlining = authorship by an undergraduate^u, graduate student^g, postdoc^p, or technician^t in my research group

[] = ISI Journal Impact Factor

** *external recognition*

† *equal authorship contributions*

Conventions for authorship order. The first author and authors near the front conducted the main analyses and led the writing of the paper. The last author and authors near the end played senior roles; the last author typically served as a mentor to the first author, conceiving of the study, designing the analyses, contributing substantially to the writing, and funding the research.

Peer-reviewed articles published at Notre Dame

- Grieneisen L., Dasari M., Gould T.J., Björk J.R., Grenier J., Yotova V., Jansen D., Gottel N., Gordon J.B., Learn N.H., Gesquiere L.R., Wango T.L., Mututua R.S., Warutere J.K., Siodi L., Gilbert J.A., Barreiro L.B., Alberts S.C., Tung* J., **Archie* E.A.**, Blekhman* R. 2021. Gut microbiome heritability is nearly universal but environmentally contingent. *Science*. 373:181-186.
*these authors contributed equally
- Colchero, F. Aburto, J.M., **Archie, E.A.**, Boesch, C. Breuer, T., Campos, F.A., Collins, A. Conde, D.A., Cords, M., Crockford, C. Thompson, M.E., Fedigan, L.M., Fichtel, C., Groenenberg, M., Hobaiter, C., Kappeler, P.M., Lawler, R.R., Lewis, R.J., Machanda, Z.P., Manguette, M.L., Muller, M.N., Packer, C., Parnell, R.J., Perry, S., Pusey, A.E., Robbins, M.M., Seyfarth, R.M., Silk, J.B., Staerk, J., Stoinski, T.S., Stokes, E.J., Strier, K.B., Strum, S.C., Tung, J., Villavicencio, F., Wittig, R.M., Wrangham, R.W., Zuberbühler, K., Vaupel, J.W., Alberts, S.C. et al. 2021. The long lives of primates and the 'invariant rate of ageing' hypothesis. *Nature Communications*: 12: 3666.
- Campos F.A., **Archie, E.A.**, Gesquiere, L.R., Tung, J. Alberts S.C. 2021. Glucocorticoid exposure predicts survival in female baboons. *Science Advances*. 7: eabf6759.
- Gogarten J., Rühlemann M., **Archie E.A.**, Tung J., Akoua-Koffi C., Bang C., Deschner T., Muyembe-Tamfun J.J., Robbins M.M., Schubert G., Surbeck M., Wittig R.M., Zuberbühler K., Baines J.F., Franke A., Leendertz F.H., Calvignac-Spencer S. 2021. Primate phageomes are structured by superhost phylogeny and environment. *Proceedings of the National Academy of Sciences*. 118: e2013535118.
- Anderson J.A., Johnston R.A., Lea A.J., Campos F.A., Voyles T.A., Akinyi M.Y., Alberts S.C., **Archie E.A.**, Tung J. 2021. High social status males experience accelerated epigenetic aging in wild baboons. *eLife*. 10 :e66128.
- Zeng S., Rosenbaum S., Alberts S.C., **Archie E.A.**, Li F. 2021. Causal Mediation Analysis for Sparse and Irregular Longitudinal Data. *Annals of Applied Statistics*. 15: 747-767

7. Weibel^g, C.J., Tung, J.T., Alberts, S.C., **Archie, E.A.** (2020). Accelerated reproduction is not an adaptive response to early life adversity in wild baboons. *Proceedings of the National Academy of Sciences*. 117: 24909-24919. ** Recommended by Faculty Opinions; Winner of the Omenn Prize from the International Society for Evolution, Medicine, and Public Health
8. Levy[†], E.J., Zippel[†], M.N. McLean, E., Campos, F.A., Dasari^g, M., Fogel, A.S., Franz, M. Gesquiere, L.R., Gordon, J.B., Grieneisen^g, L. Habig^g, B., Jansen[†], D.J., Learn, N.H., Weibel^g, C.J., Altmann, J., Alberts[†], S.C., **Archie[†], E.A.** (2020). A comparison of dominance rank metrics reveals multiple competitive landscapes in an animal society. *Proceedings of the Royal Society*. 287: 20201013
9. Campos, F.A., Villavicencio, F., **Archie, E.A.**, Colchero, F., Alberts, S.C. (2020). Social relationships, social status, and survival in wild baboons: A tale of two sexes. *Philosophical Transactions of the Royal Society*. 375: 20190621.
10. Rosenbaum, S.R.^p, Zeng, S., Campos, F.A., Gesquiere, L., Altmann, J., Alberts, S.C., Li, F. **Archie, E.A.** (2020). Social bonds do not mediate the relationship between early adversity and adult glucocorticoids in wild baboons. *Proceedings of the National Academy of Sciences*. 117: 20052–20062
11. Levy, E.J., Gesquiere, L.R., McLean, E., Franz, M., Warutere, J.K., Sayialel, S.N., Mututua, R.S., Wango, T.L., Oudu, V.K., Altmann, J., **Archie, E.A.**, Alberts, S.C. (2020). Higher dominance rank is associated with lower glucocorticoids in wild female baboons: A rank metric comparison. *Hormones and Behavior*. 125: 104826
12. Sarkar, A., Harty, S., Johnson, K.V.A., Moeller, A.H., **Archie, E.A.**, Schell, L.D., Carmody, R.N., Clutton-Brock, T.H., Dunbar, R.I.M., Burnet, P.W.J. (2020). Microbial transmission in animal social networks and the social microbiome. *Nature Ecology & Evolution*.
13. Gesquiere, L.R., Habig, B.^g, Hansen, C., Li, A., Fried, K., Learn, N.H., Alberts, S.C., Graham, A.L., **Archie, E.A.** (2020). Noninvasive measurement of mucosal immunity in a free-ranging baboon population. *American Journal of Primatology*. 82: e23093
14. Dunn, R.R., Amato, K.R., **Archie, E.A.**, Arandjelovic, M., Crittenden, A.N., Nichols, L.M. (2020). The Internal, External and Extended Microbiomes of Hominins. *Frontiers in Ecology and Evolution*. 8:25.
15. Zippel, M.N., **Archie, E.A.**, Tung, J., Altmann, J., Alberts, S.C. (2019). Intergenerational effects of early adversity on survival in wild baboons. *eLife*. 8:e47433
16. McLean, E.M., **Archie, E.A.**, Alberts, S.C. (2019). Lifetime fitness in wild female baboons: trade-offs and individual heterogeneity in quality. *American Naturalist*. 194: 745-759
17. Björk J.B.^p, Díez-Vives C., Astudillo-García C. **Archie[†] E.A.**, Montoya[†] J.M. (2019). Vertical transmission of sponge microbiota is inconsistent and unfaithful. *Nature Ecology and Evolution*. 3: 1172-1183
18. Grieneisen, L.E.^g, Charpentier, M.J.E., Alberts, S.C., Blekhman, R., Bradburd, G., Tung, J., **Archie, E.A.** (2019). Genes, geology and germs: gut microbiota across a primate hybrid zone are explained by site soil properties, not host species. *Proceedings of the Royal Society B*. 286: 20190431

19. Akinyi M.Y., [Jansen, D.[†]](#), [Habig, B.^g](#), Gesquiere L.R., Alberts, S.C. **Archie, E.A.** (2019). Costs and drivers of helminth parasite infection in wild female baboons. *Journal of Animal Ecology*. 88: 1029-1043
20. [Habig, B.^g](#), [Jansen, D.[†]](#), Akinyi, M., Gesquiere, L., Alberts, S.C., **Archie, E.A.** (2019). Multi-scale predictors of parasite risk in wild male savanna baboons (*Papio cynocephalus*). *Behavioral Ecology and Sociobiology*. 73: 134
21. [Björk, J.R.^p](#), [Dasari, M.^g](#), [Grieneisen, L.^g](#), **Archie, E.A.** (2019). Primate microbiomes over time: Longitudinal answers to standing questions in microbiome research. *American Journal of Primatology*. 2019: e22970
22. [Obanda, V.^g](#), Maingi, N., Muchemi, G., Ng'ang'a, C.J., Angelone, S., **Archie, E.A.** (2019). Infection dynamics of gastrointestinal helminths in sympatric non-human primates, livestock and wild ruminants in Kenya. *PLoS One*. 14: e0217929
23. Devoto, A.E., Santini, J.M., Olm, M.R., Anantharaman, K., Munk, P., Tung, J., **Archie, E.A.**, Turnbaugh, P.J., Seed, K.D., Blekman, R., Aarestrup, F.M., Thomas, B.C., Banfield, J.F. (2019). Megaphage infect *Prevotella* and variants are widespread in gut microbiomes. *Nature Microbiology*. 4: 693–700
24. Lea, A.J., Akinyi, M.Y., Nyakundi, R. Mareri, P., Nyundo, F., Kariuki, T., Alberts, S.C., **Archie, E.A.**, and Tung, J. (2018). Dominance rank-associated gene expression is widespread, sex-specific, and a precursor to high social status in wild male baboons. *Proceedings of the National Academy of Sciences*. 115: E12163-E12171
25. [Habig, B.^g](#), Doellman, M.M., [Woods, K.^u](#), [Olsen, J.^u](#), **Archie, E.A.** (2018). Social status and parasitism in male and female vertebrates: a meta-analysis. *Scientific Reports*. 8: 3629
26. Gesquiere, L.R., Altmann, J. **Archie, E.A.**, Alberts, S.C. (2018). Interbirth intervals in wild baboons: Environmental predictors and hormonal correlates. *American Journal of Physical Anthropology*. 166: 107-126
27. Lea, A.J., Tung, J., **Archie, E.A.**, Alberts, S.C. (2018). Developmental plasticity: Bridging research in evolution and human health. *Evolution Medicine and Public Health* 2017: 162–175
28. [Grieneisen, L.G.^g](#), Livermore, J., Alberts, S.C., Tung, J. **Archie, E.A.** (2017). Group living and male dispersal predict the core gut microbiome in wild baboons. *Integrative and Comparative Biology*. 57: 770-785
29. [Miller, E.A.^g](#), Livermore, J.A., Alberts, S.C., Tung, E.A., **Archie, E.A.** (2017). Ovarian cycling and reproductive state shape the vaginal microbiota in wild baboons. *Microbiome* 5: 8
**this paper was recommended by Faculty of 1000
30. Zippel, M.N., Grady, J.H., Gordon, J.B., Chow, L.D., **Archie, E.A.** Altmann, J.A., Alberts, S.C. (2017) Conditional fetal killing by male baboons. *Proceedings of the Royal Society B* 284: 20162561
31. [Miller, E.A.^g](#), Beasley, D.E., Dunn, R., **Archie, E.A.** (2016) Lactobacilli dominance and vaginal pH: Why is the human vaginal microbiome Unique? *Frontiers in Microbiology* 7: 1936

32. Tung[†], J., **Archie[†], E.A.**, Altmann, J., Alberts, S.C. (2016). Cumulative early adversity predicts longevity in wild baboons. *Nature Communications*. **7**:11181
[†]equal contribution with JT
33. Ezenwa, V.O., **Archie, E.A.**, Craft, M.E., Hawley, D.M., Martin, L.B., Moore, J., White, L. (2016). Host behaviour-parasite feedback: an essential link between animal behaviour and disease ecology. *Proceedings of the Royal Society* **283**: 20153078
34. Blekhman R., Tang K., **Archie E.A.**, Barreiro L.B., Johnson Z.P., Wilson M.E., Kohn J., Yuan M.L., Gesquiere L., Grieneisen L.E., Tung J. (2016). Common methods for fecal sample storage in field studies yield consistent signatures of individual identity in microbiome sequencing data. *Scientific Reports* **6**:31519
35. Ren[†], T., Grieneisen^{†g}, L.E., Alberts, S.C., **Archie[†], E.A.**, Wu[†], M. (2016). Development, diet and dynamism: longitudinal and cross-sectional predictors of gut microbial communities in wild baboons. *Environmental Microbiology* **18**: 1312-25
[†]equal contribution between the first authors and between myself and MW
36. **Archie E.A.**, Tung J. (2015). Social behavior and the microbiome. *Current Opinion in Behavioral Sciences* **6**: 28-34
37. Tung, J. Barriero,L.B., Burns, M., Grenier, J.C., Lynch, J., Grieneisen, L., Altmann, J., Alberts, S.C., Blekhman, R., **Archie, E.A.** (2015). Social networks predict gut microbiome composition in wild baboons. *eLife*. 4: e05224
 **this paper is marked as Highly Cited in Field in ISI Web of Science
 **this paper was recommended by Faculty of 1000
38. Habig, R.g, **Archie, E.A.** (2015). The effect of social status on immune function in male vertebrates. *Philosophical Transactions of the Royal Society B*. 370: 20140109 [ISI impact factor = 5.68; Q1 in Biology, Ecology, and Evolutionary Biology]
 *I conceived of the study, mentored the first author, led data generation, directed the analyses, and made substantial contributions to writing the paper
39. **Archie, E.A.**, Tung, J., Clark, M., Altmann, J. & Alberts, S.C. (2014). Social affiliation matters: both same-sex and opposite-sex relationships predict survival in wild female baboons. *Proceedings of the Royal Society B*. 281: 20141261
40. Chiyo, P.I., Wilson, J.W., **Archie, E.A.**, Lee, P.C., Moss, C.J., Alberts, S.C. (2014). The influence of forage, protected areas, and mating prospects on grouping patterns in male elephants. *Behavioral Ecology*. 25: 1494-1504
41. **Archie, E.A.**, Altmann, J.A., Alberts, S.C. (2014) Costs of reproduction in a long-lived primate: Injury risk and wound healing. *Behavioral Ecology and Sociobiology*. 68: 1183-1193
42. Chiyo, P.I.p, Grieneisen, L.E.g, Wittemyer, G., Moss, C.J., Lee, P.C., Douglas-Hamilton, I., **Archie, E.A.** (2014). The influence of social structure, habitat, and host traits on the transmission of *Escherichia coli* in wild elephants. *PLoS One* 9: e93408
43. Runcie, D.E., Wiedmann, D.T., **Archie, E.A.**, Altmann, J., Wray, G.A., Alberts, S.C., Tung, J. (2013) Social environment influences the relationship between genotype and gene expression

in wild baboons. *Philosophical Transactions of the Royal Society B*. 368: 20120345

44. **Archie, E.A.** (2013) Wound healing in the wild: stress, sociality, and energetic costs affect wound healing in natural populations. *Parasite Immunology*. 35: 374-385
45. **Archie, E.A.**, Altmann, J., Alberts, S.C. (2012) Social status predicts wound healing in wild baboons. *Proceedings of the National Academy of Sciences*. 109: 9017-9022
46. McLean, E.R.[†], Kinsella, J.M., Chiyo, P.I., Obanda, V., Moss, C.J., and **Archie, E.A.** (2012) Genetic identification of five Strongyle nematode parasites in wild African elephants (*Loxodonta africana*). *Journal of Wildlife Disease*. 48: 707-716
47. **Archie, E.A.** & Chiyo, P.I.^p (2012) Elephant behaviour and conservation: Social relationships, the effects of poaching, and genetic tools for management. *Molecular Ecology* 21: 765-778
48. **Archie, E.A.**, Ezenwa, V.O. (2011). Population genetic structure and history of a generalist parasite infecting multiple sympatric host species. *International Journal for Parasitology*. 41:89-98
49. Chiyo, P.I., Lee, P.C., Moss, C.J., **Archie, E.A.**, Hollister-Smith, J.A., Alberts, S.C. (2011). No risk, no gain: effects of crop-raiding and genetic diversity on body size in male elephants. *Behavioral Ecology*. 22: 552-558
50. Chiyo, P.I., Moss, C.J., **Archie, E.A.**, Hollister-Smith, J.A., Alberts, S.C. (2011). Using molecular and observational techniques to estimate the number and raiding patterns of crop-raiding elephants. *Journal of Applied Ecology*. 48: 788-796
51. **Archie, E.A.**, Theis, K.R. (2011) Animal behavior meets microbial ecology. *Animal Behaviour* 82: 425-436

Peer-reviewed articles published prior to Notre Dame

52. **Archie, E.A.**, Henry, T., Maldonado, J.E., Moss, C.J., Poole, J.H., Pearson, V.R., Murray, S., Alberts, S.C., Fleischer, R.C. (2010) Major histocompatibility complex variation and evolution at a single expressed DQA locus in two genera of elephants. *Immunogenetics*. 62: 85-100
53. **Archie, E.A.**, Luikart, G. & Ezenwa, V.O. (2009). Infecting epidemiology with genetics: a new frontier in disease ecology. *Trends in Ecology and Evolution*. 24: 21-30
54. Ezenwa, V.O., Hines, A.M., **Archie, E.A.**, Hoberg, E.P., Asmundsson, I.M., Hogg, J.T. (2010). *Muellerius capillaris* dominates the lungworm community of Bighorn Sheep at the National Bison Range, Montana. *Journal of Wildlife Diseases*. 46: 988-993
55. Vance, E.R., **Archie, E.A.**, & Moss, C.J. (2009). Social networks in African elephants. *Computational and Mathematical Organization Theory*. 15: 273-293
56. **Archie, E. A.**, Maldonado, J. E., Hollister-Smith, J. A., Poole, J. H., Moss, C. J., Fleischer, R. C. & Alberts, S. C. (2008). Fine-scale population genetic structure in a fission-fusion society. *Molecular Ecology*. 17: 2666-2679

57. **Archie, E.A.**, Hollister-Smith, J.A., Poole, J.H., Lee, P.C., Moss, C.J., Maldonado, J.E., Fleischer, R.C., & Alberts, S.C. (2007). Behavioral inbreeding avoidance in wild African elephants. *Molecular Ecology*. 16: 4138-4148
58. Hollister-Smith, J.A., Poole, J.H., **Archie, E.A.**, Vance, E.R., Georgiadis, N.J., Moss, C.J., & Alberts, S.C. (2007). Older is better: reproductive success increases with age in wild male African elephants. *Animal Behaviour*. 74: 287-296
59. **Archie, E.A.**, Moss, C.J., and Alberts, S.C. (2006). The ties that bind: genetic relatedness predicts the fission and fusion of social groups in wild African elephants. *Proceedings of the Royal Society B*. 273: 513-522
60. **Archie, E.A.**, Morrison, T.A., Foley, C.A.H., Moss, C.J. & Alberts, S.C. (2006). Dominance rank relationships among wild female African elephants (*Loxodonta africana*). *Animal Behaviour*. 71:117-127.
61. Buchan, J.C., **Archie, E.A.**, Van Horn, R.C., Moss, C.J., Alberts, S.C. (2005). Locus effects and sources of error in non-invasive genotyping. *Molecular Ecology Notes*. 5:680-683
62. **Archie, E.A.**, Moss, C.J. and Alberts, S.C. (2003) Characterization of tetranucleotide microsatellite loci in the African Savannah Elephant (*Loxodonta africana africana*). *Molecular Ecology Notes*. 3:244-246
63. **Archie, E.A.** and Digby, L.J. (1999). Juvenile dominance in *Eulemur macaco flavifrons*: The influence of sex and maternal rank. *Folia Primatologica*. 70:277-281

Invited commentaries and book chapters

1. **Archie, E.A.** (2019). Bat microbiomes are socially synchronized. *Nature Ecology & Evolution*. 3: 18-19.
2. Alberts, S.C., **Archie, E.A.**, Gesquire, L.R., Altmann, J.A., Vaupel, J.W., Christiansen, K. (2014) The male-female health-survival paradox: A comparative perspective on sex differences in aging and mortality. In: *Advances in Biodemography: Cross-Species Comparisons of Social Environments and Social Behaviors, and their Effects on Health and Longevity*. (Eds. Weinstein, M., Lane, M.) Washington, DC: National Research Council and National Academies Press.
3. **Archie, E.A.** Alberts, S.C., Fitzpatrick, C.L. & Moss, C.J. (2011). The population genetics of the Amboseli elephants. In: *Amboseli Elephants: A long-term perspective on a long-lived mammal*. Eds. C.J. Moss, H. Croze. Chicago: University of Chicago Press.
4. **Archie, E.A.**, Moss, C.J., and Alberts, S.C. (2011). Friends and relations: kinship and the nature of female elephant social relationships. In: *Amboseli Elephants: A long-term perspective on a long-lived mammal*. Eds. C.J. Moss, H. Croze. Chicago: University of Chicago Press.

INVITED LECTURES

- 2020 Long Term Animal Research Seminar Series, Duke University
- 2020 Department of Biology, Indiana University, Bloomington, IN
- 2020 Leibniz Science Campus, University of Göttingen, Göttingen, Germany

- 2020 Department of Biology, Queens College, City University of New York, New York, USA
- 2020 Anthropology and Archaeology, University of Calgary, Calgary, Canada (*elected by graduate students as their annual external speaker*)
- 2020 Program in Ecology, Duke University, Durham, NC
- 2019 Workshop on Sociality and Health in Primates, Robert Koch Institute, Berlin, Germany
- 2019 Institute for Advanced Study, Toulouse, France
- 2019 Environment and Society & Ecology and Evolutionary Biology, Brown University, Providence, RI
- 2019 Discussant, Symposium on Primate Microbiomes, American Association of Physical Anthropology, Cleveland, OH
- 2017 EEEB Distinguished Speaker, Michigan State University, East Lansing, MI
- 2017 Invited Symposium Speaker, Jaffe Symposium on Security and Scarcity, University of Michigan, Ann Arbor, MI
- 2017 Invited Symposium Speaker, Ecological Society of America, Portland, OR
- 2017 Virginia Tech, Biological Sciences, Blacksburg, VA
- 2017 University of Illinois at Urbana Champaign, Champaign, IL
- 2017 Invited symposium speaker, Society for Integrative and Comparative Biology, New Orleans, LA
- 2016 Invited plenary address in honor of Jeanne Altmann, International Primatological Society, Chicago, IL
- 2016 Invited symposium speaker, International Primatological Society, Chicago, IL
- 2016 Invited symposium speaker, Ecological Society of America, Fort Lauderdale, FL
- 2016 Lake Forest College, Lake Forest, IL
- 2016 Western Michigan University, Kalamazoo, MI
- 2015 Department of Ecology, Evolution, and Behavior, University of Minnesota, MN
- 2015 Biology Department, Goshen College, Goshen, IN
- 2015 Adventures of the Mind, Rosemont College, Philadelphia, PA
- 2014 School of Biology, Georgia Tech, Atlanta, GA
- 2014 New York Regional Species Distribution Modeling Discussion group, American Museum of Natural History, New York, NY
- 2014 Western Kentucky University, Bowling Green, KY
- 2014 The School of Biology & the Aquatic Chemical Ecology Center, Georgia Tech, Atlanta, GA
- 2014 Annual Retreat, Eck Institute for Global Health, University of Notre Dame, IN
- 2013 Gottinger Freilandtage conference on The Sociality-Health-Fitness Link. German Primate Center (DPZ), Gottingen, Germany
- 2013 Max Planck Institute for Demographic Research, Rostock, Germany
- 2013 Department of Biology, Valparaiso University, Valparaiso, IN
- 2013 Keynote Address for Midwest Ecology and Evolution Conference, University of Notre Dame, Notre Dame, IN
- 2013 Department of Biology, Indiana University, Bloomington, IN
- 2013 Ethoinformatics Working Group, Washington University, St. Louis
- 2013 Department of Biological Sciences, Purdue University Calumet, Hammond, IN
- 2012 Evolutionary Demography Workshop, Max Planck Institute for Demographic Research, Rostock, Germany
- 2012 Smithsonian Conservation Biology Institute, Front Royal, VA
- 2012 Biology Department, Indiana State University, Terre Haute, IN
- 2011 Symposium on Sociability, Health and Life Histories, Department of Ecology and Evolutionary Biology, Princeton University, Princeton, NJ
- 2010 Center for Evolutionary and Conservation Genetics, Smithsonian Institution, Washington, DC
- 2010 Department of Biological Sciences, Virginia Tech, Blacksburg, VA
- 2010 Division of Biological Sciences, University of Missouri, Columbia, MO

- 2009 Institute for Primate Research, Nairobi, Kenya
- 2009 Biology Department, City University of New York, New York, NY
- 2009 Zoology Department, Michigan State University, East Lansing, MI
- 2009 Biology Department, College of Mount Saint Vincent, Bronx, NY
- 2009 Ecology, Evolution & Environmental Biology, Columbia University, New York, NY
- 2007 Smithsonian National Zoological Park, Washington, DC
- 2007 Division of Biological Sciences, University of Montana, Missoula, MT
- 2007 Biological Sciences, Fordham University, Bronx, NY
- 2007 Department of Biological Sciences, Lehigh University, Bethlehem, PA
- 2006 Biology Department, University of Arkansas at Little Rock, Little Rock, AR
- 2006 Biology Department, Dickinson College, Carlisle, PA
- 2006 Biology Department, Bowdoin College, Brunswick, ME
- 2006 Smithsonian National Museum of Natural History, Washington, DC
- 2005 Smithsonian National Zoological Park, Washington, DC
- 2005 Smithsonian Conservation Research Center, Front Royal, VA

TEACHING AND OUTREACH

Courses taught at the University of Notre Dame

Animal Behavior (BIOS 30407)

Spring 2010-2021

80-110 students per semester, 3 credits

Lecture course for undergraduates with three in-class exams and literature-based discussions

Community Ecology (BIOS 60525)

Fall 2018, 2020

7 students, 3 credits, co-instructor: Dr. Jason McLachlan

Lecture and research discussion course for graduate students on major concepts in community ecology

Behavioral Ecology (BIOS 60552)

Fall 2012, 2014, 2016, and 2018

6 to 10 students, 3 credits

Lecture and research discussion course for advanced undergraduates and graduate students

Population Biology of Infectious Disease (BIOS 60569-02)

Fall 2015

8 students per semester, 3 credits, co-instructor: Dr. Alex Perkins

Lecture and research discussion course for graduate students and advanced undergraduates on the ecology and evolution of infectious disease

Ecology and Evolution of Infectious Disease (BIOS 60569)

Fall 2011

8 students, 3 credits, co-instructor: Dr. Ben Ridenhour (Biology)

Lecture and research discussion course for advanced undergraduates and graduate students

Behavior and Disease (BIOS 60574)

Fall 2010

9 students, 3 credits

Lecture and research discussion course for advanced undergraduates and graduate students

Courses taught at other institutions

Ecology (Fordham University)

Spring 2009

40 students, 3 credits

Lecture course for undergraduates with three in-class exams and literature-based discussions

Altruism: The Biology of Morality (Duke University)

Fall 2004

18 students, 3 credits

Lecture and research discussion course for junior and senior undergraduates

Educational outreach and other educational activities

Quant Camp (Notre Dame)

August 2017- present

I collaborate with three other Notre Dame faculty to teach a computational skills “boot camp”, which provides early-stage Biology graduate students with an introduction to computational tools. We bring 15 students to Notre Dame’s environmental research station at UNDERC for 5 intensive days of data collection, analysis skills, modeling, and reading peer-reviewed papers. I lead the module that introduces students to R statistical software.

Baboon Films: A project in scientific communication (Notre Dame and Penn High School, Mishawaka, IN)

Spring 2011-2019

I direct an educational outreach project with two teachers at Penn High School in Mishawaka, IN, Kevin McNulty and Shellie Harshberger. High school freshman gain hands-on experience with real, international research by making films about the Amboseli Baboon Project, the baboons, and the Amboseli ecosystem. In addition, each year the class visits my lab at Notre Dame for a day-long series of outreach activities, including “Savannah CSI” (a genetics game set in Amboseli) and a lab activity to learn about parasites. My undergraduate and PhD students conduct a panel discussion about career opportunities in science. This project began with my CAREER award in 2011 and has continued beyond the life of the award.

Public website for the Amboseli Baboon Research Project (Notre Dame)

2012-present

I built and maintain the public website for the Amboseli Baboon Research Project (ABRP), a long-term study of wild baboons in Kenya, which I help direct. This website provides a publicly accessible space for ABRP to share scientific results, news, information about baboons, and resources with the scientific community. It can be found at: <http://amboselibaboons.nd.edu/>

Visiting Instructor, Non-invasive Genetic Techniques in Wildlife Conservation (Smithsonian Conservation Biology Institute in Front Royal, Virginia)

May 2011, 2012

I served as a visiting instructor for this summer course, which involved designing and teaching modules to 30 graduate students from my own research.

Public science outreach (Smithsonian National Zoological Park, Washington, DC)

2005 - 2007

I designed and taught several outreach activities at the National Zoo, aimed at educating children and adults about conservation, genetics, and animal behavior.

Invited educational outreach seminars

- 2015-2018 *Life as a field biologist*. Spoke to high school freshman in honors biology students at Penn High School, Mishawaka, IN.
- 2014 *The role of women in field biology in East Africa*. Spoke to undergraduates in a course on Women's Voices in Biology at St. Mary's College, South Bend, IN.
- 2013 *Life as a field biologist*. Spoke to high school freshman in honors biology students at Penn High School, Mishawaka, IN.
- 2013 *Social behavior and survival in wild baboons*. Spoke to the general public at the Potawatomie Conservatories, Mishawaka, IN.
- 2012 *The role of women in field biology in East Africa*. Spoke to undergraduates in a course on Women's Voices in Biology at St. Mary's College, South Bend, IN.
- 2012 *Life as a field biologist*. Spoke to high school freshman in honors biology at Penn High School, Mishawaka, IN.

RESEARCH PERSONNEL SUPERVISED

bold = manuscript(s) published while in my lab at Notre Dame

underline = presented a poster or talk at an internal or external conference (see p. 21 for a full list of external meeting participation by my trainees)

* = completed an honors project

Postdoctoral researchers

- 2020-present Dr. Ipek Kulahci, PhD in Ecology and Evolutionary Biology, Princeton University (2014); M.S. Ecology and Evolutionary Biology, University of Arizona (2011); B.S. Biology, Stanford University (2007)
- 2019-2020 **Dr. Stacy Rosenbaum**, currently an Assistant Professor at the University of Michigan. Ph.D. in Biological Anthropology, University of California Los Angeles (2014); M.A. in Biological Anthropology University of California Los Angeles (2010).
- 2016-2020 **Dr. Johannes Bjork**, currently a postdoc at the University of Groningen in the Netherlands. Ph.D., Institute of Marine Sciences, Barcelona, Spain (2016); M.S. University of Gothenburg, Gothenburg, Sweden (2011)
- 2010-2013 **Dr. Patrick Chiyo**, currently conducting research with the Kenya Wildlife Service. Ph.D., Duke University, Durham NC (2010); M.S. Makerere University, Kampala, Uganda (2000)

Doctoral theses directed at Notre Dame

- 2020-present Chelsea Southworth, B.S. in Biology from Duke University (2020).
- 2018-present Emily Nonnamaker, M.S. in Ecology and Evolution, Tulane University (2017); B.S. in Environmental Biology, Tulane University (2016).
- 2017-present **Chelsea Weibel**, B.S. in Biochemistry and Mathematics, SUNY College at Geneseo (2014)
- 2015-present **Mauna Dasari**, B.S. in Microbial Biology; B.A. Anthropology. University of California, Berkeley (2012)

- 2012-2017 **Robert Habig**, *currently an NSF Postdoctoral Fellow at CUNY and the American Museum of Natural History*. B.A., Biology, Queens College, City University of New York, Flushing, NY (2011); M.S. Science Education, Bank Street College of Education, New York, NY (2002); B.A. Drama and Theater, Queens College, City University of New York, Flushing, NY (1992)
- 2011-2017 **Laura Grieneisen**, *currently a Postdoctoral Fellow in the Department of Genetics and Genomics at the University of Minnesota*. M.S. Biology, Bucknell University, Lewisburg, PA (2011); B.S. Biology, College of William and Mary, Williamsburg, VA (2009)
- 2010-2016 **Elizabeth Miller**, *currently a Research Scientist at the University of Minnesota*. B.S. Biology, Oberlin College, Oberlin, OH (2007)

International post-graduate student sponsorship and training

As part of my research in Kenya, I serve as the primary supervisor for Kenyan M.S. and Ph.D. students. This supervision is required for my research permission from the Kenyan Government and is important for building research capacity in Kenya.

- 2018-present Peter Oduor, M.S. in Reproductive Sciences, Department of Veterinary Anatomy and Physiology, University of Nairobi
- 2017-2019 **Rispah Nyambura Ng'Ang'A**, *Currently a PhD student at the University of East Anglia*. M.S. in Genetics, College of Biological and Physical Sciences, University of Nairobi.
- 2011-2015 **Vincent Obanda**, *Currently the Director of Research at Kenya Wildlife Service*. PhD at the Department of Parasitology and Pathobiology, University of Nairobi, Kenya (2015); M.S. Zoology Department, University of Nairobi, Nairobi, Kenya (2004); B.S. Zoology and Botany, Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya (1999)

Other lab personnel

- 2014-present **Dr. David Jansen** is my lab manager. He received his Ph.D. from the University of Zurich, Switzerland, in 2013 and his BS from the University of Wageningen, the Netherlands in 2003.
- 2010 – 2011 **Emily McLean**, was a research technician in my lab. *She is currently an Assistant Professor at Oxford College at Emory University*. She received her M.S. from the University of North Carolina at Greensboro, Greensboro, NC and her B.S. from Bryan College, Dayton, TN.

Undergraduate researchers at Notre Dame

bold = manuscript(s) published while in my lab at Notre Dame

underline = presented a poster or talk at an internal or external conference (see p. 21 for a full list of external meeting participation by my trainees)

* = completed an honors project

- 2021 – present Logan Barrios, Biology, 2021
- 2021 – present Stephanie Swegel, Biology, 2021
- 2018 – present Davin Lee, Biology 2020
- 2018 – present Marlena Muszynska, Biology 2020
- 2017 – present Elise Paietta, Biology, 2020

2019 – 2020	<u>Cassandra Duncan</u> , Biology, 2022
2018 – 2020	<u>Katherine Sestrick</u> , Biology, 2020
2019 – 2019	<u>Tamara Lee</u> , REU program participant
2018 – 2019	<u>Laura Faubion</u> , Neuroscience and Behavior, 2021
2016 – 2018	<u>Idaleen Ching</u> , Neuroscience, 2018
2016 – 2018	<u>Joohye Kim</u> , Biology, 2019
2016 – 2018	<u>Abigail Herman</u> , SCPP and Anthropology, 2018
2016 – 2018	<u>Christina Wells</u> , SCPP, 2019
2018 – 2018	<u>Emily Mears</u> , Biology, 2020
2018 – 2018	<u>Andrew Belilos</u> , Science Business
2016 – 2017	<u>Claire Goodfellow</u> , Biology, 2017
2015 – 2016	<u>Tammi Del Ponte</u> , Neuroscience and Behavior, 2017
2015 – 2016	<u>Anne Lentino</u> , Biology, 2018
2015 – 2016	<u>Kaya Moore</u> , Biology and Philosophy, 2016
2015 – 2016	<u>Jennifer Shin</u> , SCPP, 2016
2015 – 2016	<u>Erik Mendoza</u> , Psychology, 2016
2014 – 2016	<u>Kourtney Woods</u> , Biology, 2017
2014 – 2016	<u>Jean Carlo Yunen</u> , Biology, 2017
2014 – 2016	<u>Nicole Thieken</u> , Biology and Anthropology, 2016
2013 – 2016	<u>Caitlin Smith</u> , Psychology, 2015
2014 – 2015	<u>Jon Olansen</u> , Biology, 2017
2013 – 2015	<u>Melanie Mironovich</u> , Biology, 2015
2012 – 2015	<u>Jeff Hansen</u> , Biology, 2015
2013 – 2014	<u>Amy Johnson</u> , SCPP and Psychology, 2015
2013 – 2013	<u>Julia Kruep</u> , Biology, 2015
2012 – 2013	<u>Kelly Deweese</u> , Biology, 2013
2011 – 2013	<u>Whitney Preisser</u> , Biology, 2013
2011 – 2013	<u>Suzanne Spitzer</u> , Biology and Anthropology, 2013
2011 – 2013	<u>Emily Spulak*</u> , Biology, 2013
2011 – 2013	<u>Tylor Gauger</u> , SCPP, 2013
2010 – 2013	<u>Danielle Guilfoyle</u> , SCPP, 2013
2010 – 2011	<u>Edward Kangsup Kim</u> , SCPP, 2011
2009 – 2011	<u>David Cray</u> , Biology, 2011
2009 – 2011	<u>Anjelica Nguyen</u> , SCPP, 2011

High School researchers at Notre Dame

2019 – 2020	<u>Connor Craig</u> , Penn High School, Mishawaka, IN
2015 – 2016	<u>Molly Pendergast</u> , Marian High School, Mishawaka, IN

Student grants and awards

External

2020	National Science Foundation Graduate Research Fellowship to Chelsea Southworth
2020	Jack Kent Cooke Foundation Graduate Scholarship to Chelsea Southworth
2020	Trailblazing Graduate Research Award, Ecological Society of America, to Mauna Dasari
2020	R.C. Lewontin Award from the Society for the Study of Evolution, to Emily Nonnamaker
2020	Animal Behavior Society Student Research Grant to Emily Nonnamaker
2020	International Primatological Society Research Grant to Emily Nonnamaker
2020	Primate Society of Great Britain Research Grant to Emily Nonnamaker
2020	American Society of Mammalogy Grant-In-Aid of Research to Emily Nonnamaker

- 2019 National Science Foundation Graduate Research Fellowship Honorable Mention to Chelsea Weibel
- 2019 Sigma Xi Grant in Aid of Research to Emily Nonnamaker
- 2019 Diversity Travel Award from the Animal Behavior Society to Mauna Dasari
- 2017 Summer Institutes Scholarship, Department of Biostatistics, University of Washington to Mauna Dasari
- 2017 National Science Foundation Postdoctoral Fellowship to Bobby Habig
- 2017 Grand Challenges Research Award from the University of Minnesota to Laura Grieneisen
- 2017 National Science Foundation Graduate Research Fellowship Honorable Mention to Mauna Dasari
- 2011 National Science Foundation Graduate Research Fellowship to Elizabeth Miller

Internal

- 2019 Notebaert Professional Development Award to Chelsea Weibel
- 2019 Best Oral Presentation, Notre Dame REU program, to Tamara Lee
- 2019 Best Poster, Notre Dame REU program, to Elise Paietta
- 2018 Schmitt Fellowship awarded to Emily Nonnamaker
- 2017 Leadership Engaging Socially Engaged Research to Mauna Dasari
- 2017 GLOBES minigrant to Mauna Dasari
- 2017 REACT Fellowship for Quantitative Training to Chelsea Weibel
- 2017 REACT Fellowship for Quantitative Training to Mauna Dasari
- 2016 Social Responsibilities of Research Fellowship, to Mauna Dasari
- 2016 Graduate Student Life Award, to Mauna Dasari
- 2016 Outstanding Talk at Notre Dame Biology Departmental Retreat to Elizabeth Miller
- 2016 Outstanding Poster at Notre Dame Biology Departmental Retreat to Robert Habig
- 2015 Dean's Fellowship awarded to Mauna Dasari
- 2015 Notebaert Professional Development Award to Elizabeth Miller
- 2015 Notebaert Professional Development Award to Laura Grieneisen
- 2015 Notebaert Professional Development Award to Robert Habig
- 2013 Honors in Biology awarded to Emily Spulak
- 2012 Schmitt Fellowship awarded to Robert Habig
- 2012 Notebaert Professional Development Award to Elizabeth Miller
- 2012 Notebaert Professional Development Award to Laura Grieneisen
- 2010 Moreau Postdoctoral Fellowship to Patrick Chiyo

INTERNATIONAL ACTIVITIES

Professional activities

- 2019 *Invited workshop speaker*, Primate sociality working group at the Robert Koch Institute, Berlin, Germany.
- 2017 *Grant Review Panel and Site Visit*, German Research Foundation (Deutsch Forschungsgemeinschaft), "Sociality and Health in Primates", German Primate Center, Gottingen, Germany.
- 2017 *Grant Reviewer*, The Natural Environment Research Council, United Kingdom
- 2016 *Invited workshop participant*, Primate sociality working group at the German Primate Center, Gottingen, Germany.
- 2014 *Grant Review Panel and Site Visit*, German Research Foundation (Deutsch Forschungsgemeinschaft). Reviewer for research unit 2136/1, titled, "Sociality and Health in Primates", at the German Primate Center, Gottingen, Germany. I

- was one of two Americans invited to participate in this panel because of my expertise on the links between social behavior and health in primates.
- 2013 – present Member, National Primate Task Force at Kenya Wildlife Service. This group advises the Kenya Wildlife Service about conservation issues related to primates in Kenya.
- 2011 – present Research Associate, Institute for Primate Research (IPR), Nairobi, Kenya. Part of the National Museums of Kenya, IPR is the premier primate research institute in Kenya. I collaborate with IPR affiliated scientists, especially Dr. Tom Kariuki.
- 2010 – present Associate Director, Amboseli Baboon Research Project, Kenya. ABRP is one of the longest-running studies of wild primates in the world. The other co-directors are Dr. Susan Alberts (Duke University), Dr. Jeanne Altmann (Princeton University), and Dr. Jenny Tung (Duke University).
- 2010 – present Member, Scientific Advisory Board, Amboseli Elephant Research Project, Kenya. The Amboseli Elephant Research Project is the longest-running study of wild elephants in the world. I advise AERP about future research directions.
- 2008 – present Board member, The Patricia William Mwangaza Foundation; a charitable foundation that provides financial support to educate Kenyan citizens in Kenya.

International collaborations

- 2010 – present Collaborating with Dr. Vincent Obanda, a research scientist in the Veterinary Services Department of the Kenya Wildlife Service. We are collaborating to understand whether gut microbes are transmitted between sympatric mammalian hosts in East African savannah environments. This collaboration has led to two publications: (McLean et al. 2012; *Journal of Wildlife Disease*. 48: 707-716; Obanda et al. 2019, *PLoS One*)
- 2017 – present Collaborating with Dr. Mercy Akinyi, a research scientist at the Institute of Primate Research in Nairobi, Kenya. We collaborate on research to understand patterns of parasitism and diet diversity in the Amboseli Baboons. We co-mentor Masters student Rispah Nyambura. This collaboration has led to two publications: Akinyi et al. (2019), *Journal of Animal Ecology*; Habig et al. (2019), *Behavioral Ecology and Sociobiology*)
- 2012 – 2015 Collaborating with statisticians and demographers at the Max Planck Institute for Demographic Research in Rostock Germany to estimate patterns of male mortality in wild baboons. Main collaborators: Dr. Jim Vaupel, Dr. Alex Colchero, and Dr. Jutta Gampe.
- 2011 – 2014 Working with scientists at the Institute for Primate Research in Nairobi, Kenya, to measure immune responses in wild baboons. In 2013, we submitted an R21 proposal to NIH as to support this work. Main collaborator: Dr. Tom Kariuki.

PROFESSIONAL MEMBERSHIPS AND SERVICE

Professional activities

- 2020 - present Associate Editor, Animal Behaviour
- 2019 Symposium organizer, organized and leading a symposium on, “Cross-taxa perspectives on behavior and developmental origins” at the Animal Behavior Society (ABS) meeting in Chicago, IL. I am organizing this symposium together with my postdoc, Stacy Rosenbaum. ABS awarded us \$5,000 to spend on travel funds for participants.
- 2018 - present Editorial Board, American Journal of Primatology
- 2017 - present Academic Editor, PeerJ

- 2016 - 2017 Chair, American Society of Naturalists Workshop Committee. I worked with two other faculty to review applications for workshop funding, supported by the American Society of Naturalists.
- 2015 - 2016 Chair, American Society of Naturalists Student Research Awards Committee. I work with two other faculty and three graduate students to review Student Research Award applications for the American Society of Naturalists.
- 2014 Invited participant, NESCent catalysis meeting on the evolution and community ecology of host-associated microbiota. The aim of this meeting was to bring together evolutionary biologists, community ecologists, microbial ecologists and medical microbiologists to develop conceptual frameworks to advance scientific understanding of the biotic interactions among the gut microbes and the host.
- 2014 Invited participant, New Frontiers for the Integrative Study of Animal Behavior. Invited by the NSF to help develop a whitepaper that defined the future of integrative research in animal behavior. This workshop was initiated and supported by the Behavioral Systems Cluster at NSF and included 25 experts in the field of animal behavior. New York Genome Center, New York, NY.
- 2014 Symposium organizer. Organized and led an NSF-funded symposium titled, "Animal Behavior and Disease Ecology: Past, Present, and Future" at the national meeting of the Annual Behavior Society. Our symposium included an evening outreach activity to help students at the conference meet the symposium speakers. My co-organizer was Vanessa Ezenwa (University of Georgia). Animal Behavior Society Annual Meeting, Princeton, NJ.
- 2014 Member, American Society of Naturalists Student Research Awards committee. I work with two other faculty and three graduate students to review Student Research Award applications for the American Society of Naturalists.
- 2013 Invited participant, Ethoinformatics Working Group. Invited member of a workshop that aimed to develop new digital tools for data collection in the field of animal behavior. Washington University, St. Louis, MO
- 2012 Judge. Warder Clyde Allee Award for Best Student Paper. This award is the top award granted to PhD students in my field. Animal Behavior Society Annual Meeting, Albuquerque, NM
- 2009 – 2013 Member, Evolution Working Group, Notre Dame.
- 2009 – 2011 Member, Conversations in Mind, Brain and Behavior, Notre Dame.
- 2006 – 2007 Member, Committee on Elephant Science and Conservation, Smithsonian National Zoo.

Professional society memberships: Animal Behavior Society, Ecological Society of East Africa, International Primatological Society, and the Society for the Study of Evolution

Proposal and manuscript reviews

(since 2005)

Granting agencies: National Institutes of Health, National Science Foundation (grant reviews and panel service), Leaky Foundation, Deutsche Forschungsgemeinschaft, US-Israel Bi-National Science Foundation, The Natural Environment Research Council, UK

Journals: American Midland Naturalist, American Journal of Physical Anthropology, American Journal of Primatology, Animal Behaviour, Behavioral Ecology, Behavioral Ecology and Sociobiology, Behaviour, Biology Letters, BMC Ecology, Conservation Biology, Conservation Genetics, Current Anthropology, Current Biology, Estuaries and Coasts, Ethology, Ecology and Evolution, Evolution, Environmental Microbiology, Functional Ecology, Heredity, Hormones and

Behavior, International Journal of Primatology, ISME Journal, Journal of Animal Ecology, Journal of Arid Environments, Journal of Mammalogy, Journal of Zoology, Microbial Ecology, Molecular Biology and Evolution, Molecular Ecology, Molecular Ecology Notes, PLoS One, Philosophical Transactions of the Royal Society, Proceedings of the National Academy of Sciences, Proceedings of the Royal Society of London, Psychosomatic Medicine, Royal Society Open Science, Science, Trends in Ecology and Evolution, Yearbook of Physical Anthropology

Notre Dame center affiliations

Eck Institute for Global Health
 Notre Dame Environmental Change Initiative
 Global Linkages of Biology, Environment and Society (GLOBES)

College and University service

- 2016-present Founder, REACT program (Rapid Exposure to Advanced Computational Training). This program provides funds for graduate students across the College of Science to attend national and international workshops in computational techniques. I wrote proposals to secure funding for the program, designed the funding procedures, and work with other faculty to evaluate student applications. REACT is collaboration between the Environmental Change Initiative (ECI), The Eck Institute for Global Health (EIGH), the Genomics and Bioinformatics Core Facility (GBCF), and the Harper Cancer Research Institute (HCRI). We disperse ~\$10,000 annually for student training.
- 2017-present Building Bridges Faculty Mentor. Serves as a faculty mentor for two undergraduate students from underrepresented groups at Notre Dame
- 2018 Interviewer, Trustey Merit Scholars selection visit, University of Notre Dame
- 2016 Judge, 3-Minute Thesis contest, University of Notre Dame
- 2013-2014 Member, search committee in Epidemiology. Helped to screen and interview candidates for two tenure-track positions in epidemiology. Eck Institute for Global Health and the University of Notre Dame, IN.
- 2013 Host, Scholarly Engagement Program. Hosted 15 freshman and sophomores at my home for dinner to discuss research opportunities and careers in biology, University of Notre Dame, Notre Dame, IN.
- 2010-2011 Member, search committee in Neurobiology (IUSB). Helped to screen and interview job candidates for a tenure-track position in neuroscience. Indiana University South Bend, IN.
- 2011-present Faculty advisor. Notre Dame for Animals
- 2011 Panelist. Office of Research panel for new faculty on applying for an NSF CAREER award.
- 2010 Panelist. Kaneb Center panel for graduate students on the academic job search.

Departmental service

Committees

- 2020-present Chair, faculty search committee in ecology, evolution, and environmental change. Led a group of six faculty to screen 300+ applications, organized interviews for five top candidates, and recommended a list of hires to the Department.
- 2020-present Member, Strategic Planning Committee. Worked with other faculty to develop a strategic plan for the Department of Biological Sciences.

- 2013-present *Member, Graduate Studies Advisory Committee (GSAC)*. As a member of this committee, I represent 9 faculty in the graduate admissions and recruitment process. This committee also works to improve graduate education in Biology.
- 2019-2020 *Assistant Chair, Department of Biological Sciences*. Served in an advisory capacity on departmental leadership questions. Focused service efforts on our graduate program.
- 2019-2020 *Co-chair, Graduate Curriculum Committee*. In 2019/2020 we worked to revise the graduate program to respond to comments from our 2018 departmental external review.
- 2017-2019 *Member, Committee on Inclusive Excellence*. This committee works to improve diversity in the Biology Department at Notre Dame.
- 2017-2018 *Member, External Review Task Force*. I helped plan and prepare documents for the Departmental external review in 2018.
- 2016-2017 *Member, Undergraduate Curriculum Committee*. This committee met weekly through 2016 and 2017 to re-design the introductory biology course offerings at Notre Dame.
- 2015-2016 *Elected Member, Committee on Appointments and Promotions (CAP)*. Facilitated departmental decisions on hiring and promotions.
- 2015-2016 *Member, job search committee in Ecology, Evolution, and Environmental Change*. Helped to screen 450+ applicants for an open rank search. Participated in interviews.
- 2014-2016 *Member & Chair (2015), Biology Department Seminar Committee*. Organized Biology Department seminar series and nominations for sponsored lectures.
- 2009-2016 *Member & Chair (2011 & 2012), Biology Department events committee*. Planned and helped direct departmental retreats in 2010, 2012 and 2014. Each December we plan and host the departmental Christmas party.
- 2010-2011 *Member, Biology Department ad hoc graduate curriculum committee*. We prepared materials for the Biology Department external review. I wrote a document which is currently used to evaluate the annual progress of graduate students.

Graduate student committees at Notre Dame:

Brittni Bertolet (Jones)
 Hildamarie Caceres-Velazquez (Jones)
 Katelyn Carothers (McDowell)
 Mary Chang (Boyd)
 Kerri Citterbart (Belovsky)
 Colin Dassow (Jones)
 Rose Donohue (Michael)
 David Flagel (Belovsky)
 Cate Flanley (IBMS)
 Mary Glover (Feder)
 Benjamin Gombash (Hollocher)
 Maria Hinson (Michael)
 Erica Kistner (Belovsky)
 Amy Klegarth (Hollocher)
 Alexis Korotasz (Rohr)
 Jessica Kowalik (Ridenhour)
 Glen Hood (Feder)
 Diana LaTore (Michael)
 Dave Molik (Pfrender)
 Rachel Oidtman (Perkins)

Chloe Ramsay (Rohr)
 Chissa Rivaldi (Hollocher)
 Lindsey Sargent (Lodge)
 Kimbra Turner (Ridenhour)
 Justin Wilcox (Hollocher)

External graduate student committees:

Jordan Anderson (Duke University)
 Mercy Akinyi (Duke University)
 Shifra Goldenberg (Colorado State University)
 Emily Levy (Duke University)
 Emily McLean (Duke University)

News media coverage

- 2020 Phys.Org (August 2020). [Social bonds in adulthood don't mediate early life trauma](#)
 Notre Dame News (August 2020) [Strong relationships in adulthood won't 'fix' effects of early childhood adversity](#)
- 2019 What Would You Fight For (November 2019). [Fighting to understand the scientific impact of community.](#)
 Sapiens (August 2019). [Does Your Microbiome Shape Your Friendships?](#)
 Science Magazine (April 2019). [Baboons' gut makeup is determined mostly by soil, not genetics](#)
 Scientific American (January 2019). [What Can Baboon Relationships Tell Us about Human Health?](#)
- 2018 Coverage for NSF Rules of Life Award. [NSF announces new awards for Understanding the Rules of Life](#)
 Participated in a documentary film series called, [Aging in the Wild](#). The series the series was adapted into a one-off for the [CBC](#) 'The Nature of Things' and broadcast in the fall of 2018. It also aired as a 5-part series on Love Nature in Canada.
 Coverage for Habig et al. 2018: [Social Dominance Comes at a Cost](#)
 Coverage for Lea et al. [Baboon sexes differ in how social status gets 'under the skin'.](#)
- 2017 Participated in a documentary film series called, [Sisters of the Savannah](#).
- 2016 National Institute on Aging (Apr 19 2016) [Early life adversity predicts longevity in baboons, serving as a human model for aging](#)
 National Science Foundation (Apr 19 2016) [Rough childhoods can have ripple effects for wild baboons](#)
 Duke Today [Rough Childhoods Have Ripple Effects for Baboons](#)
 Smithsonian magazine (Apr 19 2016) [For Baboons, a Tough Childhood Can Lead to a Short Life](#)
 Pacific Standard (Apr 21 2016) [Childhood Adversity Shortens Lives \(in Baboons\)](#)
 Quirks and Quarks CBCradio (Apr 23 2016) [Difficult childhood makes baboon lives briefer Including interview with Susan Alberts](#)
 The Washington Post (Apr 25 2016) [Like humans, baboons with tough childhoods die](#)

[earlier](#)

The Sydney Morning Herald (Apr 26 2016) [Like humans, baboons with tough childhoods die earlier](#)

- 2015 Big Picture Science (March 2015; <http://radio.seti.org/blog/2015/03/big-picture-science-microbes-resistance-is-futile-beth-archie-shared-microbiome/>), The Atlantic, The Scientist, Phys.Org, Science Blog, Eureka Alert, Blogs: Microbiome Digest and The Molecular Ecologist
- 2014 Science magazine (17 October issue, 2014), The Daily Mail (UK), the Huffington Post, the ND Observer, Der World (Germany), Delhi Daily News (India), Daily News, Nature World News, Science Daily, Science News Online, Wild Biology
- 2012 The National Science Foundation, the Huffington Post, Scientific American, New York Daily News, Agence France-Presse (France), the Star Tribune, German Public Radio (Germany), Science Now, Science Daily, Eureka Science News, Business Standard, the Daily Nation (Kenya), Red Orbit, Science News Online, and Science News Daily
- 2011 MSNBC, ABC News, Discovery News
- 2010 AAAS Science Update Podcast
- 2006 Discovery News

SUBMITTED EXTERNAL RESEARCH ABSTRACTS

underline = graduate student, postdoc, or technician

bold = undergraduate researcher

- 2020 Dasari M, Jansen D, Grieneisen L, Björk J, Gould T, Grenier JC, Yotova V, Gittel N, Gilbert J, Barreiro L, Tung J, Blehman R, Archie E. Evaluating the mammalian gut microbiome as a marker of biological aging. *Ecological Society of America*.
- 2020 Dasari M, Jansen D, Grieneisen L, Björk J, Gould T, Grenier JC, Yotova V, Gittel N, Gilbert J, Barreiro L, Tung J, Blehman R, Archie E. Evaluating the mammalian gut microbiome as a marker of biological aging. *Animal Behavior Society*.
- 2020 Weibel C, Tung J, Altmann J, Alberts S, Archie EA. (2019). Accelerated reproduction is not an adaptive response to early adversity in wild baboons. *Animal Behavior Society*.
- 2019 Dasari M, Jansen D, Grieneisen L, Björk J, Gould T, Grenier JC, Yotova V, Gittel N, Gilbert J, Barreiro L, Tung J, Blehman R, Archie E. Gut microbial aging in a wild primate. *Non-human Primates – Novel Insights in Evolutionary Medicine*.
- 2019 Dasari M, Jansen D, Grieneisen L, Björk J, Gould T, Grenier JC, Yotova V, Gittel N, Gilbert J, Barreiro L, Tung J, Blehman R, Archie E. Does the host-associated microbiome undergo successional changes with age? *Ecological Society of America*.
- 2019 Dasari M, Jansen D, Grieneisen L, Björk J, Gould T, Grenier JC, Yotova V, Gittel N, Gilbert J, Barreiro L, Tung J, Blehman R, Archie E. Understanding age-related changes in the mammalian gut microbiome. *Animal Behavior Society*.
- 2019 Weibel C, Tung J, Altmann J, Alberts S, Archie EA. (2019). Accelerated reproduction is not an adaptive response to early adversity in wild baboons. Poster presentation at the *Annual Meeting for the Ecological Society of America*.
- 2019 Weibel C, Tung J, Altmann J, Alberts S, Archie EA. (2019). Accelerated reproduction is not an adaptive response to early adversity in wild baboons. Oral presentation at the *Annual Conference of the Animal Behavior Society*.
- 2018 Dasari M, Jansen D, Grieneisen L, Björk J, Gould T, Grenier JC, Yotova V, Gittel N, Gilbert J, Barreiro L, Tung J, Blehman R, Archie E. Age, Early Life Adversity, Fitness and the

- Host-Associated Microbiome. *Conference on Beneficial Microbes*
- 2016 Grieneisen, L.E., Livermore, J., Altmann, J., Alberts, S.C., Tung, J. and Archie, E.A. Dispersal history predicts gut microbiome composition in male baboons. *Animal Behavior Society Annual Meeting*, Columbia, MO
- 2016 Habig, R., Doellman, M.M., **Woods, K.**, **Olansen, J.**, and EA Archie. Social status and parasitism in male and female vertebrates: a meta-analytic review. *Animal Behavior Society Annual Meeting*, Columbia, MO
- 2016 Miller, E.A., Beasley, D., Dunn, R. and EA Archie. Lactobacilli dominance and vaginal pH: Why are humans unique? *Animal Behavior Society Annual Meeting*, Columbia, MO
- 2015 Grieneisen, L.E., J Livermore, J Altmann, SC Alberts, J Tung, and EA Archie. Social relationships and microbial ecology in wild baboons. *Ecological Society of America Annual Meeting*, Baltimore, MD
- 2015 Grieneisen, L.E., J Livermore, J Altmann, SC Alberts, J Tung, and EA Archie. Sex differences in social behavior predict gut microbiome composition in wild savannah baboons (*Papio cynocephalus*). Poster. *Midwest Primate Interest Group Annual Meeting*, St. Louis, MO
- 2015 Miller, E.A. and Archie, E.A. The baboon vaginal microbiome shows the greatest protective function during times of heightened sexual activity” *Ecological Society of America Annual Meeting*, Baltimore, MD
- 2015 Miller, E.A. and Archie, E.A. The baboon vaginal microbiome shows the greatest protective function during times of heightened sexual activity” *Midwest Primate Interest Group Annual Meeting*, St. Louis, MO
- 2015 Habig, R. and Archie, E.A. Social status and parasitism in male and female vertebrates: a meta-analysis” Poster. *Animal Behavior Society*, University of Alaska, Anchorage
- 2015 Habig, R. and Archie, E.A. “Social status and parasitism in male and female vertebrates: a meta-analysis” Poster. *Midwest Primate Interest Group Annual Meeting*, St. Louis, MO
- 2014 Archie, E.A., Blekhman, R., Barriero, L., Burns, M., Grenier, J.C., Grieneisen, L. Altmann, J., Alberts, S.C., Tung, J. Social interactions predict gut microbiome composition in wild baboons. *Animal Behavior Society Annual Meeting*, Princeton, NJ
- 2014 **Hansen, J.**, Archie, E.A. The effect of baboon hybridity on parasite resistance mechanisms. *Animal Behavior Conference*, Indiana University, Bloomington, IN
- 2014 Habig, R., Archie, E.A., The Effects of Social Status on Immune Function in Male Vertebrates: A Meta-Analytic Review. *Society for the Study of Evolution Annual Meeting*, Durham, NC
- 2013 Grieneisen, L.E., Koepfel, A.F., Wu, M. Archie, E.A. Temporal and ecological predictors of gut microbiome structure in wild baboons. *Midwest Ecology and Evolution Conference*, University of Notre Dame, Notre Dame, IN
- 2013 **Spitzer, S.**, Archie, E.A. A Hierarchy of Health: Dominance Rank and Parasite Load in Wild Male Baboons. *Midwest Ecology and Evolution Conference*, University of Notre Dame, Notre Dame, IN
- 2013 **Spulak, E.**, Archie, E.A. The Influence of Sex and Age on Patterns of Parasitism in Wild Baboons. *Midwest Ecology and Evolution Conference*, University of Notre Dame, Notre Dame, IN
- 2013 **Hansen, J.**, Tung, J. Archie, E.A. The effect of baboon hybridity on parasite resistance mechanisms. *Midwest Ecology and Evolution Conference*, University of Notre Dame, Notre Dame, IN
- 2012 Archie, E.A., Altmann, J., Alberts, S.C. Social status predicts wound healing in wild, male baboons. *Animal Behavior Conference*, Indiana University, Bloomington, IN
- 2012 Grieneisen, L.E., Chiyo, P., Pitts, D.A., Archie, E.A. Seasonal changes in home range in elephants: implications for disease transmission. Poster. *Animal Behavior Conference*, Bloomington, IN

- 2012 Grieneisen, L.E., Chiyo, P., Pitts, D.A., Archie, E.A. Seasonal change in elephant home range: implications for disease transmission. *Animal Behavior Society Annual Meeting*, Albuquerque, NM
- 2012 Miller, E.A., Altmann, J.A., Alberts, S.C., Archie, E.A. Demographic and environmental factors affecting baboon social network structure: Implications for intra-group disease transmission. *Animal Behavior Conference*, Indiana University, Bloomington, IN
- 2012 Miller, E.A., Altmann, J.A., Alberts, S.C., Archie, E.A. Demographic and environmental factors affecting baboon social network structure: Implications for intra-group disease transmission. *Animal Behavior Society Annual Meeting*, Albuquerque, NM
- 2011 Archie, E.A., Altmann, J., Alberts, S.C. Dominance rank predicts wound healing in wild baboons. *Ecology and Evolution of Infectious Disease*, Santa Barbara, CA
- 2006 Archie, E.A., Moss, C.J., Vance, E.R. and Alberts, S.C. Kinship and social behavior in wild African elephants. *American Society of Mammalogists*, Amherst, MA
- 2006 Archie, E.A., Hollister-Smith, J.A., Poole, J., Moss, C.J., Maldonado, J., Fleischer, R.C., and Alberts, S.C. Inbreeding avoidance in wild African elephants. *Society for the Study of Evolution*, Stony Brook, NY
- 2005 Archie, E.A., Moss, C.J. and Alberts, S.C., Allee competition participant. The ties that bind: kinship predicts social relationships among wild female African elephants. *Animal Behavior Society*, Snowbird, UT
- 2004 Archie, E.A., Moss, C.J. and Alberts, S.C., Genetic relatedness predicts association among wild African elephants. *Animal Behavior Society*, Oaxaca, Mexico
- 2000 Beebee, M.D., Nowicki, S.A., Peters, S., and Archie, E.A. Geographic variation of song type sharing in song sparrows. *Animal Behavior Society*, Lewisberg, PA