Elizabeth A. Archie

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HIGHER EDUCATION

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

APPOINTMENTS

2015-present	Associate Professor, University of Notre Dame, IN
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

2017	Article recommended by Faculty of 1000
2015	Article recommended by Faculty of 1000
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

Pending external funding

2018-2023 National Science Foundation, Symbiosis and Self Defense. *Collaborative Research: Joint modeling of host and microbiome dynamics*. Role: PI (Co-PIs: Jason McLachlan, Ran Blekhman, and Mevin Hooten; $1.4M)

Awarded external funding

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; $2.4M)

2017-2019 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; $437,880)

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; $10,000)

2011-2017 National Science Foundation CAREER Award, Division of Integrated Organismal Systems. *Understanding socially-structured transmission of infectious agents in wild baboons*. Role: PI ($756,630)

Awarded internal funding

2016-2018 Eck Institute for Global Health. *Building Multidisciplinary Teams: Ecological frameworks to understand the causes and consequences of longitudinal gut microbial dynamics*. Role: PI (Co-PIs: Stuart Jones and David Boone; $60,000)

2016-2018 Notre Dame Environmental Change Initiative. *Ecological frameworks to understand the causes and consequences of longitudinal gut microbial dynamics*. Role**:** PI ($30,000)

2013-2015 Princeton Global Health Grand Challenges Award. *"Wild baboons as a model to understand immune function and disease risk during pregnancy and lactation".* Role**:** Co-PI (PI: Jeanne Altmann; $82,000)

2009-2010 Notre Dame Genomics Core Pilot Grant. *Deep sequencing to identify microsatellites in three species of parasitic nematodes*. Role: PI ($15,000)

PUBLICATIONS

ISI Web of Science h-index = 17 (1,056 citations)
Google Scholar h-index = 20 (1,764 citations)

Peer reviewed publications

1. Grieneisen, L.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.

2. Miller, E.A., 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 ** recommended by Faculty of 1000

3. Zipple, 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* **284**: 20162561

4. Miller, E.A., 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

5. Tung*, J., **Archie*, E.A.**, Altmann, J., Alberts, S.C. (2016). Cumulative early adversity predicts longevity in wild baboons. *Nature Communications*. **7**:11181 *denotes equal contributions

6. 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

7. 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

8. Ren, T., Grieneisen, 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 *denotes equal contributions

9. **Archie E.A.**, Tung J. (2015). Social behavior and the microbiome. *Current Opinions in Behavioral Sciences* **6**: 28-34.

10. 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. *eLif*e. 4: e05224 ** recommended by Faculty of 1000

11. Habig, R., **Archie, E.A.** (2015). The effect of social status on immune function in male vertebrates. *Philosophical Transactions of the Royal Society B*. 370: 20140109

12. **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.

13. 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.

14. **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.

15. Chiyo, P.I., Grieneisen, L.E., 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.

16. 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.

17. **Archie, E.A.** (2013) Wound healing in the wild: stress, sociality, and energetic costs affect wound healing in natural populations. *Parasite immuology*. 35: 374-385.

18. **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.

19. 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.

20. **Archie, E.A.** & Chiyo, P.I. (2012) Elephant behaviour and conservation: Social relationships, the effects of poaching, and genetic tools for management. *Molecular Ecology* 21: 765-778.

21. **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.

22. 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.

23. 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.

24. **Archie, E.A.**, Theis, K.R. (2011) Animal behavior meets microbial ecology. *Animal Behaviour* 82: 425-436.

25. **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.

26. **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.

27. 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.

28. Vance, E.R., **Archie, E.A.**, & Moss, C.J. (2009). Social networks in African elephants. *Computational and Mathematical Organization Theory*. 15: 273-293.

29. **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.

30. **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.

31. 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.

32. **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.

33. **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. [3.068]

34. 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.

35. **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.

36. **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.

Book chapters

1. 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.

2. **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.

3. **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.

SELECTED INVITED LECTURES

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 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
2015 Adventures of the Mind, Rosemont College, Philadelphia, PA
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 Keynote Address for Midwest Ecology and Evolution Conference, University of Notre Dame, Notre Dame, IN
2013 Ethoinformatics Working Group, Washington University, St. Louis
2012 Evolutionary Demography Workshop, Max Planck Institute for Demographic Research, Rostock, Germany
2012 Smithsonian Conservation Biology Institute, Front Royal, VA

TEACHING AND OUTREACH

Courses taught at the University of Notre Dame

Animal Behavior (BIOS 30407)
Spring 2010-2018
80-100 students per semester, 3 credits
Lecture course for undergraduates with three in-class exams and literature-based discussions

Community Ecology (BIOS 60525)
Fall 2018
7 students, 3 credits, co-instructor: Dr. Jason McLachlan
Lecture and research discussion course for graduate students on major concepts in community ecology

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

Behavioral Ecology (BIOS 60552)
Fall 2012, 2014, and 2016
6 to 10 students, 3 credits
Lecture and research discussion course for advanced undergraduates and graduate students

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

Educational outreach activities

Baboon Films: A project in scientific communication (Notre Dame and Penn High School, Mishawaka, IN)
Spring 2011-present
As part of my NSF CAREER award, I direct an educational outreach project with two teachers at Penn High School in Mishawaka, IN, Kevin McNulty and Shellie Harshberger. High school freshman get hands-on experience with real, international research by making films about the Amboseli Baboon Project, the baboons, and the Amboseli ecosystem. Their work can be seen at: http://www.baboonfilms.org/

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

2012-2017	*Life as a field biologist.* Spoke to high school freshman in honors biology students at Penn High School, Mishawaka, IN.
2012-2014	*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	*Social behavior and survival in wild baboons*. Spoke to the general public at the Potawatomie Conservatories, Mishawaka, IN.

RESEARCH PERSONNEL SUPERVISED
bold = manuscript published while in my lab at Notre Dame
underline = submitted research abstract
* = completed an honors project

Postdoctoral researchers

2016-present	Dr. Johannes Bjork, Ph.D., Institute of Marine Sciences, Barcelona, Spain (2016); M.S. University of Gothenburg, Gothenburg, Sweden (2011)
2010-2013	**Dr. Patrick Chiyo**, Ph.D., Duke University, Durham NC (2010); M.S. Makerere University, Kampala, Uganda (2000)

Doctoral theses directed at Notre Dame

2016-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 Postdoctoral Researcher 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 a Kenyan Ph.D. student. This supervision is required for my research permission from the Kenyan Government and is important for building research capacity in Kenya.

2017-present Rispah Ng'Ang'A Nyambura, Masters of Science in Genetics, College of Biological and Physical Sciences, University of Nairobi.

2011-2015 **Vincent Obanda**, 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 PhD 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 received her M.S. from the University of North Carolina at Greensboro, Greensboro, NC and her B.S. from Bryan College, Dayton, TN. Emily is currently a doctoral student in the Department of Biology at Duke University.

Undergraduate researchers at Notre Dame

underline = submitted research abstract
* = honors project

2020 – present Emily Mears, Biology, 2020
2020 – present Laura Faubion, Neuroscience and Behavior, 2021
2020 – present Andrew Belilos, Science Business
2017 – present Elise Paietta, Biology, 2020
2016 – present Idaleen Ching, Neuroscience, 2018
2016 – present Joohye Kim, Biology, 2019
2016 – present Abigail Herman, SCPP and Anthropology, 2018
2016 – present Christina Wells, SCPP, 2019
2016 – 2017 Claire Goodfellow, Biology, 2017
2015 – 2016 Tammi Del Ponte, Neuroscience and Behavior, 2017
2015 – 2016 Anne Lentino, Biology, 2018
2015 – 2016 Kaya Moore, Biology and Philosophy, 2016
2015 – 2016 Jennifer Shin, SCPP, 2016
2015 – 2016 Erik Mendoza, Psychology, 2016
2014 – 2016 Kourtney Woods, Biology, 2017
2014 – 2016 Jean Carlo Yunen, Biology, 2017
2014 – 2016 Nicole Thieken, Biology and Anthropology, 2016
2013 – 2016 Caitlin Smith, Psychology, 2015
2014 – 2015 Jon Olansen, Biology, 2017
2013 – 2015 Melanie Mironovich, Biology, 2015
2012 – 2015 Jeff Hansen, Biology, 2015

2013 – 2014 Amy Johnson, SCPP and Psychology, 2015
2013 – 2013 Julia Kruep, Biology, 2015
2012 – 2013 Kelly Deweese, Biology, 2013
2011 – 2013 Whitney Preisser, Biology, 2013
2011 – 2013 Suzanne Spitzer, Biology and Anthropology, 2013
2011 – 2013 Emily Spulak*, Biology, 2013
2011 – 2013 Tylor Gauger, SCPP, 2013
2010 – 2013 Danielle Guilfoyle, SCPP, 2013
2010 – 2011 Edward Kangsup Kim, SCPP, 2011
2009 – 2011 David Cray, Biology, 2011
2009 – 2011 Anjelica Nguyen, SCPP, 2011

High School researchers at Notre Dame

2015 – 2016 Molly Pendergast, Marian High School, Mishawaka, IN

Student grants and awards

External

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 Predoctoral Fellowship Honorable Mention to Mauna Dasari
2011 National Science Foundation Predoctoral Fellowship to Elizabeth Miller

Internal

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

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

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.
2010 – 2016	Collaborating with research scientists at Kenya Wildlife Service in Nairobi, Kenya, to characterize gastrointestinal helminth parasites in wild baboons and savanna elephants. Main collaborator: Vincent Obanda. This collaboration resulted in a publication (see McLean et al. 2012 *Journal of Wildlife Disease*. 48: 707-716).
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

2018	*Editorial Board*, American Journal of Primatology
2017	*Editorial Board*, 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 Science Foundation (grant reviews and panel service), Leaky Foundation, German Research Foundation, 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, Molecular Biology and Evolution, Molecular Ecology, Molecular Ecology Notes, PLoS One, Proceedings of the National

Academy of Sciences, Philosophical Transactions of the Royal Society, Proceedings of the Royal Society of London, Psychosomatic Medicine, Royal Society Open 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.
2016	*Judge*, 3-Minute Thesis contest
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

2017-present	*Member, External Review Task Force*. I help plan and prepare documents for the Departmental external review in 2018.
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.
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.

News media coverage

2016 National Institute of 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