

Melissa EMERY THOMPSON

University of New Mexico
Department of Anthropology
MSC01-1040
Albuquerque, NM 87131

Phone: (505) 277-5700
Fax: (505) 277-0874
email: memery@unm.edu
<http://www.unm.edu/~memery/>

APPOINTMENTS

- 2009-- **Research Assistant Professor**, Department of Anthropology and Human Evolutionary Behavioral Sciences network, University of New Mexico
- 2009-- **Associate**, Department of Human Evolutionary Biology, Harvard University
- 2008-- **Co-Director**, Hominoid Reproductive Ecology Laboratory, University of New Mexico
- 2005-- **Research associate**, Department of Anthropology, Boston University
- 2008-2009 **Adjunct Assistant Professor**, Department of Anthropology and Human Evolutionary Behavioral Sciences network, University of New Mexico
- 2005-2007 **Laboratory manager**, Reproductive Endocrinology Laboratory, Boston University
- 2005-2007 **Postdoctoral fellow**, Department of Anthropology, Harvard University
Laboratory manager, Primate Reproductive Ecology Laboratory, Harvard University

EDUCATION

- 2005 **PhD** in Anthropology, Harvard University, Cambridge, MA
Dissertation: Endocrinology and Ecology of Wild Female Chimpanzee Reproduction
Advisors: Richard Wrangham, Cheryl Knott, Peter Ellison, Susan Lipson
- 2000 **AM**, Anthropology, Harvard University, Cambridge, MA
- 1997 **BS**, *summa cum laude*, *phi beta kappa*, Anthropology & Human Biology, Emory University, Atlanta, GA

TEACHING EXPERIENCE***Courses taught:***

- “Anth 350: Human Biology”, University of New Mexico (2011)
“Anth 160: The Human Life Course”, University of New Mexico (2010, 2011)
“Sophomore Tutorial in Biological Anthropology”, Harvard University (2003, 2005-2006)
“Sophomore Tutorial in Human Evolutionary Biology”, Harvard University (2007)
“Advanced Laboratory Methods in Primate Endocrinology”, Harvard University (2007)
“Undergraduate Reading and Research”, Harvard University (2006)

Teaching Assistant/Fellow

- “Behavioral and Reproductive Endocrinology”, Harvard University (2005)
“Behavioral Biology of Women”, Harvard University (2000, 2001 - Head TF, 2004)
“Behavioral Endocrinology”, Harvard University (1999, 2000)

Guest lecturer: “Biology of Sex Roles”, University of New Mexico (2010)

- “Human Reproductive Ecology and Biology”, University of New Mexico (2009)
“Topics in Human Behavioral Evolution”, University of New Mexico (2009)
“Advanced Topics in Human Behavioral Evolution”, Boston University (2007)

- “Human Reproductive Ecology”, Boston University (2006)
 “Behavioral and Reproductive Endocrinology”, Harvard University (2005)
 “Primate Evolutionary Ecology: Research Seminar”, Harvard University (2005, 2006)
 “Behavioral Endocrinology”, Harvard University (2000, 2001)
 “Evolution and Human Behavior”, Harvard University (2000)

PUBLICATIONS

Journal Articles

- Emery Thompson, M**, MN Muller, and RW Wrangham (in review). C-peptide and the costs of lactation in wild chimpanzees.
- Griskevicius, V, JM Ackerman, SM Cantu, AW Delton, TE Robertson, JA Simpson, **M Emery Thompson**, JM Tybur (in review). Psychobiological responses to resource stress depend on developmental life history strategies.
- Emery Thompson, M**, A Zhou, and CD Knott (in review). Sexual bimaturism in orangutans: low testosterone correlates with delayed development.
- Merriman, LA, SW Gangestad, **M Emery Thompson** (in review). Men in highly invested, emotionally supportive romantic relationships experience lower levels of oxidative stress.
- Garver-Apgar, C, MA Heap, J Tybur, and **M Emery Thompson** (2011). Evidence of intralocus sexual conflict: physically and hormonally masculine individuals have more attractive brothers relative to sisters. *Evolution and Human Behavior* 32: 423-432.
- Georgiev, A, **M Emery Thompson**, A Lokasola, and RW Wrangham (2011). Seed-predation by bonobos (*Pan paniscus*) at Kokolopori, Democratic Republic of Congo. *Primates* 52: 309-314.
- Caldwell Hooper, A, SW Gangestad, **M Emery Thompson**, and AD Bryan (2011). Testosterone and romance: the association of salivary testosterone with relationship status, commitment and satisfaction in heterosexual men and women. *American Journal of Human Biology* 23: 553-555.
- Benenson, JF, H Markovitz, **M Emery Thompson**, and RW Wrangham (2011). Under threat of social exclusion, females exclude more than males. *Psychological Science* 22: 538-544.
- Muller, MN, **M Emery Thompson**, SM Kahlenberg, and RW Wrangham (2011). Sexual coercion by male chimpanzees shows that female choice may be more apparent than real. *Behavioral Ecology & Sociobiology* 65: 921-933.
- Gangestad, SW, L Merriman, **M Emery Thompson** (2010). Men's oxidative stress, fluctuating asymmetry, and physical attractiveness. *Animal Behaviour* 80: 1005-1013.
- Emery Thompson, M**, MN Muller, SM Kahlenberg, and RW Wrangham (2010). Dynamics of social and energetic stress in wild female chimpanzees. *Hormones and Behavior* 58: 440-449.
- Gilby, IC, **M Emery Thompson**, J Ruane, and RW Wrangham (2010). No evidence of short-term exchange of meat for sex among chimpanzees. *Journal of Human Evolution* 59: 44-53.
- Newton-Fisher, NE, **M Emery Thompson**, V Reynolds, C Boesch, L Vigilant (2010). Paternity and social rank in Budongo Forest chimpanzees. *American Journal of Physical Anthropology* 142: 417-428.
- Knott, CD, **M Emery Thompson**, RM Stumpf, and M McIntyre (2010). Female reproductive strategies in orangutans, evidence for female choice and infanticide counterstrategies in a species with

frequent sexual coercion. *Proceedings of the Royal Society B: Biological Sciences* 277: 105-113.

- Benenson, JF, H Markovitz, **M Emery Thompson**, and RW Wrangham (2009). Strength determines coalitional strategies in humans. *Proceedings of the Royal Society B: Biological Sciences* 276: 2589-2595.
- Stumpf, RM, **M Emery Thompson**, MN Muller & RW Wrangham (2009). The context of female dispersal in Kanyawara chimpanzees. *Behaviour* 146: 629-656.
- Emery Thompson, M**, MN Muller, RW Wrangham, JS Lwanga, and KB Potts (2009). Urinary C-peptide tracks seasonal and individual variation in energy balance in wild chimpanzees. *Hormones and Behavior* 55: 299-305.
- Kahlenberg, SM, **M Emery Thompson**, MN Muller, and RW Wrangham (2008). Immigration costs for female chimpanzees and male protection as an immigrant counterstrategy to intrasexual aggression. *Animal Behaviour* 76: 1497-1509.
- Emery Thompson, M**, ML Wilson, G Gobbo, MN Muller, and AE Pusey (2008). Hyperprogesteronemia in response to *Vitex fischeri* consumption in wild chimpanzees (*Pan troglodytes schweinfurthii*). *American Journal of Primatology* 70: 1064-1071.
- Emery Thompson, M** and RW Wrangham (2008). Male mating interest varies with female fecundity in *Pan troglodytes* of Kanyawara, Kibale National Park. *International Journal of Primatology* 29: 885-905.
- Emery Thompson, M**, RM Stumpf, and AE Pusey (2008). Female reproductive strategies and competition in apes: an introduction. *International Journal of Primatology* 29: 815-821.
- Emery Thompson, M** and CD Knott (2008). Urinary C-peptide of insulin as a non-invasive measure of energy balance in wild orangutans. *Hormones and Behavior* 53: 526-535.
- Emery Thompson, M** and RW Wrangham (2008). Diet and reproductive function in wild female chimpanzees (*Pan troglodytes schweinfurthii*) at Kibale National Park, Uganda. *American Journal of Physical Anthropology* 135: 171-181.
- Stumpf, RM, **M Emery Thompson**, and CD Knott (2008). A comparison of female mating strategies in *Pan troglodytes* and *Pongo spp.* *International Journal of Primatology* 29: 865-884.
- Kahlenberg, SM, **M Emery Thompson**, and RW Wrangham (2008). Evidence for female competition over core areas in *Pan troglodytes*, Kibale National Park, Uganda. *International Journal of Primatology* 29: 931-947.
- Anderson, HB, **M Emery Thompson**, CD Knott, and L Perkins (2008). Fertility and mortality patterns of captive Bornean and Sumatran orangutans: is there a species difference in life history? *Journal of Human Evolution* 54: 34-42.
- Emery Thompson, M**, JH Jones, AE Pusey, S Brewer-Marsden, J Goodall, D Marsden, T Matsuzawa, T Nishida, V Reynolds, Y Sugiyama, and RW Wrangham (2007). Aging and fertility patterns in wild chimpanzees provide insights into the evolution of menopause. *Current Biology* 17: 2150-2156.
- Townsend, SW, KE Slocombe, **M Emery Thompson**, and K Zuberbühler (2007). Female-led infanticide in wild chimpanzees. *Current Biology* 17(10): 365-366.

- Emery Thompson, M**, SM Kahlenberg, IC Gilby, and RW Wrangham (2007). Core area quality is associated with variance in reproductive success in chimpanzees at Kanyawara, Kibale National Park. *Animal Behaviour* 73: 501-512.
- Muller, MN, SK Kahlenberg, **M Emery Thompson**, and RW Wrangham (2007). Male coercion and the costs of promiscuous mating in chimpanzees. *Proceedings of the Royal Society B: Biological Sciences* 274: 1009-1014.
- Emery Thompson, M**, NE Newton-Fisher, and V Reynolds (2006) Probable community transfer of parous adult female chimpanzees in the Budongo Forest, Uganda. *International Journal of Primatology* 27: 1601-1617.
- Muller, MN, **M Emery Thompson**, and RW Wrangham (2006). Male chimpanzees prefer mating with older females. *Current Biology* 16: 2234-2238.
- Brewer-Marsden, S, D Marsden, **M Emery Thompson** (2006) Demographic and female life history parameters of free-ranging chimpanzees at the Chimpanzee Rehabilitation Project, River Gambia National Park. *International Journal of Primatology* 27(2): 391-410.
- Emery Thompson, M**. (2005) Reproductive endocrinology of wild female chimpanzees (*Pan troglodytes schweinfurthii*): methodological considerations and the role of hormones in sex and conception. *American Journal of Primatology* 67:137-158.
- Emery, MA** and PL Whitten (2003). Size of sexual swellings reflects ovarian function in wild chimpanzees (*Pan troglodytes*). *Behavioral Ecology and Sociobiology* 54: 340-351.
- Santiago ML, M Lukasik, S Kamenya, Y Li, F Bibollet-Ruche, E Bailes, MN Muller, **M Emery**, DA Goldenberg, J Lwanga, A Ayoub, E Nerrienet, HM McClure, JL Heeney, DP Watts, AE Pusey, DA Collins, RW Wrangham, J Goodall, JFY Brookfield, PM Sharp, GM Shaw, and BH Hahn (2003) Foci of endemic simian immunodeficiency virus infection in wild-living eastern chimpanzees (*Pan troglodytes schweinfurthii*). *Journal of Virology* 77(13): 7545-7562.

Book Chapters

- Newton-Fisher, NE and **M Emery Thompson** (in press). Comparative evolutionary perspectives on violence. In *Oxford Handbook of Evolutionary Perspectives on Violence, Homicide, and War*. Edited by T. Shackelford and V. Weekes-Shackelford. Oxford University Press.
- Emery Thompson, M** and RW Wrangham (in press) *Pan troglodytes*. In *Mammals of Africa*. Edited by DCD Happold, J Kingdon, and T Butynski. Bloomsbury Publishing.
- Muller, MN and **M Emery Thompson** (in press). Reproductive strategies of males. In *The Evolution of Primate Societies*. Edited by J Mitani, J Call, P Kappeler, R Palombit, and J Silk. University of Chicago Press.
- Emery Thompson, M**, and L Alvarado (2011). Human sexual conflict and sexual coercion in comparative perspective. In *Oxford Handbook of Sexual Conflict in Humans*. Edited by A Goetz and T Shackelford. Oxford University Press.
- Emery Thompson, M** (2009). Human rape: revising evolutionary perspectives. In *Sexual Coercion in Primates: An Evolutionary Perspective on Male Aggression Against Females*. Edited by MN Muller, RW Wrangham. Harvard University Press, Cambridge, pp. 346-374.

- Emery Thompson, M** (2009). The endocrinology of intersexual relationships among apes. In *The Endocrinology of Social Relationships*. Edited by PB Gray and PT Ellison. Harvard University Press, Cambridge, MA. pp. 196-223.
- Knott, CD, **M Emery Thompson**, and SA Wich (2009). The ecology of reproduction in wild orangutans. In *Orangutans: Ecology, Evolution, Behaviour and Conservation*. Edited by SA Wich, SS Utami, T Mitra Setia, and CP van Schaik. Oxford University Press, London. pp. 171-188.
- Emery Thompson, M**, RW Wrangham, V Reynolds. (2006) Urinary estrone conjugates and reproductive parameters in Kibale (Kanyawara) and Budongo (Sonso) chimpanzees. *Primates of Western Uganda*. Edited by NE Newton-Fisher, H Notman, V Reynolds, and J Paterson. Springer, New York, pp. 227-246.
- Emery Thompson, M**, RW Wrangham (2006). Comparison of sex differences in gregariousness in fission-fusion species: reducing bias by standardizing for party size. *Primates of Western Uganda*. Edited by NE Newton-Fisher, H Notman, V Reynolds, and J Paterson. Springer, New York, pp. 209-226.

LECTURES & PUBLISHED ABSTRACTS

Invited Lectures

- American Society of Primatologists' Interdisciplinary Symposium on Reproductive Function and Dysfunction in Nonhuman Primates. "Energetics and Reproductive Success in Wild Female Chimpanzees (*Pan troglodytes*). Austin, TX. September 19, 2011.
- Leakey Foundation Trustees' Dinner. "The Future of Science and Conservation". San Francisco, CA. October 14, 2010.
- EvoS Seminar Series, Binghamton University. "The Hidden Lives of Female Apes". Binghamton, New York. May 7, 2010.
- 3rd Annual Women in Science Speaker, Indiana State University, Terra Haute, IN. "Hormones and the Hidden Lives of Female Apes." February 23, 2010.
- Primate Research Institute, University of Kyoto. "Reproductive Aging in Chimpanzees", Inuyama, Japan. November 19, 2008.
- 3rd HOPE International Symposium on Primate Origins of Human Evolution: "What hormones tell us about behavior in chimpanzees", Tokyo, Japan, November 15-18, 2008.
- University of New Mexico, Department of Anthropology Symposium Series: "Ecology of Reproduction in Chimpanzees", Albuquerque, NM, April 24, 2008.
- Yale University, Department of Anthropology Brown Bag Series: "Determinants of Reproductive Success in Wild Chimpanzees", New Haven, CT, November 16, 2006.
- Wenner-Gren Foundation Young Researchers' Symposium: "Endocrinology and ecology of wild female chimpanzee reproduction", New York, NY, October 16-17, 2005.
- Harvard University, Anthropology Day: "Ovarian hormones in wild chimpanzees: the role of hormones in sex and conception", Cambridge, MA, September 24, 2004.
- Howard Hughes Medical Institute, University of Alabama: "Reproductive Endocrinology of Chimpanzees," Birmingham, AL, November 10, 2003.

Published abstracts and conference presentations

2011. American Society of Primatologists 34th annual meeting, September 16-19, Austin, TX

- M Emery Thompson. "Energetics and reproductive success in wild female chimpanzees." Interdisciplinary Symposium: Reproductive Function and Dysfunction in Nonhuman Primates
- A Georgiev, AF Russell, M Emery Thompson, MN Muller & RW Wrangham. "Presence of estrous females associated with reduced feeding time in male chimpanzees at Kanyawara (Uganda) regardless of their dominance rank."
- E Fernandez-Duque, S Evans, M Emery Thompson. "A lab-field approach to estimating the energetic costs of biparental care in owl monkeys."

2011. American Association of Physical Anthropologists 80th annual meeting, April 12-16, Minneapolis, MN.

- M Emery Thompson, MN Muller, E Fitzgerald & RW Wrangham. "Energetic costs of reproduction in wild female chimpanzees." *American Journal of Physical Anthropology* 144 Suppl 52: 293

2010. International Primatological Society 23rd Congress, September 12-18, Kyoto, Japan.

- M Emery Thompson, MN Muller, E Fitzgerald & RW Wrangham. "C-peptide of insulin as a tool for tracking the costs of reproduction in wild chimpanzees," Symposium: Energetics: Measurement & Interpretation.
- CD Knott & M Emery Thompson. "The energetic costs of being a flanged prime male orangutan: insights into the evolution of male bi-maturism," Symposium: Energetics: Measurement & Interpretation.

2010. American Association of Physical Anthropologists 79th annual meeting, April 14-17, 2010, Albuquerque, NM.

- M Emery Thompson, M Muller, N Newton-Fisher, I Gilby, S Kahlenberg, Z Machanda, K Zuberbuhler, and R Wrangham. "Inter- and intra-population variation in aggression by adult male chimpanzees." *American Journal of Physical Anthropology* 141 Suppl 50: 101.
- MN Muller, M Emery Thompson, S Kahlenberg, RW Wrangham. "Reproduction and resistance to stress in wild chimpanzees." *American Journal of Physical Anthropology* 141 Suppl 50: 174.

2009. American Association of Physical Anthropologists 78th annual meeting, April 1-4, 2009, Chicago, IL.

- M Emery Thompson, SM Kahlenberg, MN Muller, RW Wrangham. "The dynamics of stress in female chimpanzees: interactions of social and ecological factors," *American Journal of Physical Anthropology* 138 Suppl 48: 124.
- MN Muller, M Emery Thompson, SM Kahlenberg, RW Wrangham. "Male coercion and female choice in wild chimpanzees," *American Journal of Physical Anthropology* 138 Suppl 48: 196.

2008. International Primatological Society 22nd Congress, August 3-8, Edinburgh.

- CD Knott & M Emery Thompson. "Urinary C-peptide of Insulin as a non-invasive measure of energy balance in wild orangutans." Symposium: Emerging Methods in Field Primatology.

- RM Stumpf, M Emery Thompson, MN Muller, RW Wrangham. “Behavioral and hormonal context of female transfer in wild chimpanzees.” Symposium: Should I Stay or Should I go? Dispersal Opportunities, Individual Decisions and Consequences for Wild Primates.

2007. American Association of Physical Anthropologists 76th annual meeting, March 28-31, Philadelphia, PA.

- CD Knott, M Emery Thompson & RM Stumpf (2007). Sexual coercion and mating strategies of wild Bornean orangutans. *American Journal of Physical Anthropology* Suppl. 44: 145.
- M Emery Thompson & RW Wrangham (2007). Diet and reproductive function in East African chimpanzees (*Pan troglodytes schweinfurthii*). *American Journal of Physical Anthropology* Suppl. 44: 105.

2006. International Primatological Society 21st Congress, June 25-30, Entebbe, Uganda.

- RM Stumpf & M Emery Thompson, Symposium: “Female Reproductive Strategies: Diversity Among the Apes”
- M Emery Thompson & RW Wrangham, “Male and female influence on copulation timing in chimpanzees (*Pan troglodytes*) of the Kanyawara community, Kibale National Park.” *Symposium: Female Reproductive Strategies: Diversity Among the Apes.*
- RM Stumpf, M Emery Thompson & CD Knott, “Female chimpanzee and orangutan mating strategies compared.” *Symposium: Female Reproductive Strategies: Diversity Among the Apes*
- MN Muller, S Kahlenberg, M Emery Thompson & RW Wrangham, “Male aggression against females and stress in wild chimpanzees.” *Symposium: Male Aggression Towards Females: Variation with Social System.*
- CD Knott, RM Stumpf, S Kahlenberg & M Emery Thompson. “Forced copulations and coercion in Bornean orangutans.” *Symposium: Male Aggression Towards Females: Variation with Social System.*
- SM Kahlenberg, M Emery Thompson, IC Gilby & RW Wrangham, “Female space use and competition in Kanyawara chimpanzees (*Pan troglodytes schweinfurthii*).” *Symposium: Female Competition in Great Apes.*

2005. New England Biological Anthropology Symposium, March 19, Boston, MA.

- M Emery Thompson, “Reproduction and residence patterns in female chimpanzees,”

2005. American Association of Physical Anthropologists 74th annual meeting, April 9, Milwaukee, WI.

- M Emery Thompson, “Ovarian hormones and reproductive development in wild female chimpanzees (*Pan troglodytes schweinfurthii*),” *American Journal of Physical Anthropology* 126 Suppl 40: 99.

2004. American Society of Primatologists Symposium – Advances in Field-Based Studies of Primate Behavioral Endocrinology, 27th annual meeting, June 11, Madison, WI.

- M Emery Thompson, RW Wrangham, V Reynolds & AE Pusey. “Natural variation in ovarian function in East African chimpanzees (*Pan troglodytes schweinfurthii*): Non-invasive hormonal assessment in females from three study populations,” *American Journal of Primatology* 62 Suppl 1: 122.

2003. 10th Conference on Retroviruses and Opportunistic Infections, February 10-14, Boston, MA.

- M Santiago, M Lukasik, S Kamenya, Y Li, F Bibollet-Ruche, D Goldenberg, M Muller, M Emery, D Watts, R Wrangham, A Pusey, D Collins, J Goodall, G Shaw & B Hahn, "SIVcpz prevalence and genetic diversity in wild communities of eastern chimpanzees.

GRANTS AND AWARDS

Post-doctoral

- The Leakey Foundation 2010-2012: "Stress and the Costs of Reproduction in Wild Female Chimpanzees", Role: PI, \$21,700.
- National Science Foundation 2009-2011: "Stress, Energetics and the Costs of Reproduction in Wild Chimpanzees" BCS-0849380(UNM), Role: Co-PI (PI: Martin N. Muller), \$150,000.
- American Association of Physical Anthropologists Professional Development Grant 2009: "Energetics of Lactation in Chimpanzees", \$5000.
- National Science Foundation grant (2007-2012): "Understanding the Role of Ecology in Orangutan Reproduction" BCS-0721288(Harvard University)/BCS-0936199(Boston University/UNM), Role: Post-doctoral associate (PI: Cheryl D. Knott), \$494,400.

Pre-doctoral

Certificate for Distinction in Teaching, Bok Center, Harvard University (five time recipient); Selection to Wenner-Gren Young Researchers' Conference 2005; Eliot Fellowship, Harvard University; Research Grant, L.S.B. Leakey Foundation; Research Grant, Wenner-Gren Foundation for Anthropological Research, Inc.; Harvard Merit Fellowship; Harvard University Sheldon Traveling Fellowship; Mellon Foundation Grant for Pre-Dissertation Fieldwork; Sigma-Xi Grant-in-Aid of Research; Mellon Foundation Grant for Technical Training; National Science Foundation Graduate Research Fellowship; Sherwood Washburn Fellowship, Harvard Department of Anthropology; Phi Beta Kappa, Emory University

RESEARCH EXPERIENCE

Funding Objectives:

I am currently developing research proposals to begin an examination of health, resource access, and the aging process. This constitutes two levels of research. First, I am extending my collaboration with the Kibale Chimpanzee Project to examine aging trajectories in wild chimpanzees. This study will include long-term and newly-implemented methodologies to track age-related changes in socioecological parameters, life history events, and health and reproductive biomarkers in chimpanzees, with particular attention to differences in aging between the sexes and the effects of social status. Second, I am collaborating with two studies of human foraging populations (the Tsimane of Bolivia and the Hadza of Tanzania) which are seeking to understand the influences of metabolic stress and disease on health and aging. I will be responsible for coordinating the analysis of health and reproductive biomarkers for these populations. Taken together, these projects will provide essential comparative data on which to evaluate changes in the aging pattern during human evolution.

Ongoing Research Projects and Collaborations:

1999-present **Integrative and comparative endocrinology of apes and humans:** my primary research focuses on developing and applying non-invasive methods for studying endocrinological markers of stress, reproductive function, and energetic condition. The goal of this research is to

integrate physiological information with field observations to help answer behavioral questions, as well as to compare adaptive physiological responses between hominoid species. I have operated laboratories for hormone extraction and immunoassay at Harvard University (with CD Knott), Boston University (with MN Muller), and presently at the University of New Mexico (with MN Muller). This has included development and application of assays for a range of hormones (e.g., testosterone, estrogens, progesterone, cortisol, C-peptide, LH) in chimpanzees, orangutans, bonobos, and humans.

- 2007-present **Hominoid Reproductive Ecology Laboratory:** I co-direct and maintain regular operations of a laboratory for endocrinological research in the Department of Anthropology at the University of New Mexico. In this capacity, I run ELISA and radioimmunoassay procedures for a spectrum of collaborators both within UNM and from outside departments. Our laboratory specializes in non-invasive methods (using saliva and urine, primarily) for measuring stress and reproductive health in humans and other primates. The laboratory also serves as a training ground for students interested in learning laboratory methods or applying them to their research.
- 2000-present **Kibale Chimpanzee Project:** studies of female competition and residence patterns, mating behavior, sexual coercion and other forms of aggression, feeding ecology, energetics, endocrinology, and life history. Includes primary field work conducted in 2000 and 2002-2003. Collaborators include RW Wrangham (PI), MN Muller (PI), SM Kahlenberg, IC Gilby, Z Machanda.
- 2000-present **Budongo Forest Project:** studies of endocrinology, fertility rates, aggression, paternity and female residence patterns in chimpanzees in western Uganda. Includes primary field work conducted between 2000 and 2004. Collaborators include K Zuberbuhler (PI), V Reynolds, R Wittig, K Slocombe, NE Newton-Fisher, S Townsend, Z Machanda, L Vigilant.
- 2001-present **Gombe Stream Research Centre:** studies of endocrinology and life history patterns. Includes primary field work conducted in 2002. Collaborators include AE Pusey (PI), M Wilson, G Gobbo, JH Jones, MN Muller.
- 2004-present **Gunung Palung Orangutan Project:** studies of reproductive and stress physiology, energetics, sexual coercion, female reproductive strategies, and reproductive development. Collaborators CD Knott (PI), RM Stumpf, M McIntyre, M Bastien.
- 2004-present **Life history patterns and reproductive ecology in wild and captive orangutans:** comparative studies of Bornean and Sumatran orangutan species across wild study sites and in captivity to understand variance in reproductive rates and relation to feeding ecology and energy balance. Collaborators include CD Knott (PI), H Anderson, L Perkins, SA Wich, C van Schaik, S Husson, H Morrogh-Bernard.
- 2007-present **Endocrinology of maturation and developmental arrest in male orangutans:** application of both cross-sectional and longitudinal sampling to understand the predictors of male developmental age in captive orangutans, focusing particularly on variation in testosterone and cortisol. Collaborators include CD Knott, A Zhou, T Stoinski, L Mayo, C Sodaro, S Wilson, L Lawson.
- 2008-present **Tsimane Health and Life History Project:** studies of health and energetics impacts on variance in human reproductive aging. Collaborators include H Kaplan (PI), M Gurven (PI), C Finch, E Crimmins, A Blackwell, E Fitzgerald, J Winking, J Stieglitz, E Erdei, and D Rodriguez.

Past research:

- 2002-2007 **Molecular epidemiology and natural history of SIVcpz:** studies of the prevalence, genetics, and transmission patterns of the chimpanzee simian immunodeficiency virus. Collaborators include: B Hahn (PI), M Santiago, B Keele.
- 2003-2007 **Chimpanzee Rehabilitation Project, Gambia:** Studies of life history patterns and energetics in free-ranging rehabilitation chimpanzees. Collaborators: S Brewer-Marsden and D Marsden.
- 2005-2006 **Primate Cognitive Neuroscience Laboratory, Harvard University:** stress endocrinology and discounting behavior in cotton-top tamarins. Collaborators: J Stevens (PI) and V Wobber
- 2007-2011 **Human sex differences in competition:** studies of sex differences in alliance formation, confidence, and competitive tendencies. Collaborators: J Benenson (PI), H Markovitz.
- 1995-1998 **Yerkes Primate Research Center Field Station:** Development of or participation in a range of studies of captive primates, including studies of sexual swelling and ovarian function in chimpanzees (with PL Whitten), aggressive behavior and agonistic scream structure in pigtail and rhesus macaques (with H Gouzoules, B Donaghey), reproductive competition in sooty mangabeys (undergraduate thesis, advisor PL Whitten), heart rate telemetry and psychosocial stress in rhesus macaques (with F Aureli, S Preston), and egalitarianism and grooming reciprocity in a range of species (with FBM de Waal, F Aureli).
- 1996 **Atlantic Cetacean Research Center:** research assistant and naturalist for studies of marine mammal species off of the New England Coast.

PROFESSIONAL AND PUBLIC SERVICE

University Service:

- Anthropology colloquium committee member (2009-10)
- Graduate advising: Jennifer Cabotage (UNM), Natasha Tworoski (UNM)
- Graduate committee: Louis Alvarado (UNM), Alexander Georgiev (Harvard), Lara Saipe (Boston U), Erin Fitzgerald (UNM)
- Undergraduate committee: reader/committee member for numerous undergraduate honors theses in Biological Anthrology and Human Evolutionary Biology at Harvard University
- Research mentor: Laboratory training and supervision for research projects for 1 postdoctoral fellow, 14 graduate students, 8 undergraduate students, and 2 high school advanced biology students.

Professional Service:

- Member, International Union for Conservation of Nature, Species Survival Commission (IUCN-SSC) Primate Specialist Group (2009-2012)
- Scientific committee member, International Primatological Society 23rd Congress, 2010
- Local arrangements committee member, American Association of Physical Anthropologists 79th Annual Meeting, 2010
- Symposium co-organizer w/RM Stumpf, International Primatological Society 21st Congress, “Female Reproductive Strategies: Diversity Among the Apes”

- Session Chair, “Primate Behavior: Hormones and Reproduction.” American Association of Physical Anthropologists 80th Annual Meeting, 2011.
- Reviewer: *Age; Aggressive Behavior; American Journal of Human Biology; American Journal of Primatology; Animal Behaviour; Animal Reproduction Science; Behavioral Ecology; Behavioral Ecology and Sociobiology; Behaviour; Biological Reviews; Biology of Reproduction; Current Anthropology; Current Biology; Ethology; Evolutionary Bioinformatics; Folia Primatologica; Hormones and Behavior; Human Nature: An Interdisciplinary Perspective; International Journal of Primatology; Physiology & Behavior; PLOS One; Primates; Proceedings of the National Academy of Sciences; Veterinary Parasitology; The Evolution of Primate Societies; Graduate Women in Science Fellowships; L.S.B. Leakey Foundation; National Science Foundation.*

Scientific Advising & Public Education:

- Scientific Advisory Committee Member, Maxwell Museum of Anthropology “We Evolve” exhibit (2008-present)
- Scientific Advisory Committee Member, Great Ape World Heritage Species Project (2006-7)
- Scientific Advisor, children’s book: Feinstein, S (2007) “The Chimpanzee: Help Save an Endangered Species”, Enslow Publishers, Inc. Saving Endangered Species Series.
- Educational lectures at Weston Middle School (2006); Weston High School (2007)
- Naturalist/Study Guide, Harvard Museum of Natural History travel program (2007, 2011)
- Website development, Yayasan Palung, Gunung Palung Orangutan Conservation Project (<http://www.saveGPorangutans.org>)
- Website development, Gunung Palung Orangutan Project (<http://www.fas.harvard.edu/~gporang/>)
- Website development, Kibale Chimpanzee Project (<http://www.fas.harvard.edu/~kibale>)

Community Service: volunteer pet adoption counselor – P.A.C.A./Albuquerque Animal Rescue