Robin M. Bernstein



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robin.bernstein@colorado.edu

I am a biological anthropologist. The overarching goal of my research program is to understand how patterns of growth and development are shaped within a lifetime and across evolutionary time. My work is laboratory- and field-based, rooted in interdisciplinary collaboration, and situated in life history and global health frameworks. As a faculty director of faculty development, I also coordinate programs focused on faculty mentoring and leadership.

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EDUCATION

- 2004 PhD, Anthropology, University of Illinois, Urbana, IL
- 1997 BA, Anthropology, Rutgers University, New Brunswick, NJ

PROFESSIONAL POSITIONS

- 2020- Faculty Director, Office of Faculty Affairs, University of Colorado Boulder
- 2013- Associate Professor, Department of Anthropology, University of Colorado Boulder
- 2004-13 Assistant Professor, Department of Anthropology, George Washington University

OTHER APPOINTMENTS

- 2017-18 Fellow, Research and Innovation Office (RIO) Faculty Fellows Program
- 2015- Faculty Associate/Fellow, Health and Society Program, Institute of Behavioral Science University of Colorado, Boulder
- 2013- Faculty Affiliate, Center for Global Health, Colorado School of Public Health
- 2012-13 Policy Research Scholar, Institute for Public Policy, George Washington University
- 2011- Research Associate, Department of Anthropology, University of Illinois at Urbana-Champaign
- 2005-13 Research Collaborator, National Museum of Natural History, Smithsonian Institution
- 2004-13 Assistant Professor, Department of Anatomy and Regenerative Biology, George Washington University School of Medicine

RESEARCH

Peer reviewed articles and book chapters (student co-authors underlined)

- 34. <u>Naumenko DJ</u>, Dykes J, <u>O'Connor GK</u>, <u>Stanley Z</u>, Affara N, Doel AM, Drammeh S, Dunger DB, Faal A, Ong KK, Sosseh F, Prentice AM, Moore SE, Bernstein RM. In revision. A novel method for the identification and quantification of growth faltering. *American Journal of Physical Anthropology*
- 33. Moore SE, <u>Maidwell-Smith A</u>, <u>Doel AM</u>, Bernstein RM. Revision submitted. Prevalence estimates of diabetes in pregnancy in a rural, sub-Saharan population. *Diabetes Research and Clinical Practice*.

- 32. Bernstein RM, O'Connor GK, Vance EA, Affara N, Drammeh S, Dunger DB, Faal A, Ong KK, Prentice AM, Sosseh F, Moore SE. 2020. Timing of the infancy-childhood transition in rural Gambia. *Frontiers in Endocrinology*. doi: 10.3389/fendo.2020.00142
- 31. Moore SE, <u>Doel AM</u>, Ong KK, Dunger DB, Affara NA, Prentice AM, Bernstein RM, and the HERO-G Working Group. 2020. Identification of nutritionally modifiable hormonal and epigenetic drivers of positive and negative growth deviance in rural African fetuses and infants: Project protocol and cohort description. *Gates Open Research* 4: 25. doi: 10.12688/gatesopenres.13101.1
- 30. Hinnouho G-M, Bernstein RM, Barffour MA, Arnold CD, Wessels KR, Ratsavong K, Bounheuang B, Kounnavong S, Hess SY. 2019. Impact of two forms of daily preventive zinc or therapeutic zinc supplementation for diarrhea on hair cortisol concentrations among rural Laotian children: a randomized controlled trial. *Nutrients* 11: 47.
- 29. Bernstein RM, Bogin BA. 2019. Growth and development. In: Brüne M, Schiefenhövel W, eds. *Oxford Handbook of Evolutionary Medicine*. Oxford University Press.
- 28. <u>Washabaugh J</u>, Olaniyan O, Secka A, Jeng M, Bernstein RM. 2019. Milk hygiene and consumption practices in The Gambia. *Food Control* 98: 303-311.
- 27. Wessells KR, Brown KH, Kounnavong S, Barffour MA, Hinnouho G-M, Sayasone S, Stephensen CB, Ratsavong K, Larson CP, Arnold CD, Harding KB, Reinhart GA, Lertmemongkolchai G, Fucharoen S, Bernstein RM, Hess SY. 2018. Comparison of two forms of daily preventive zinc supplementation versus therapeutic zinc supplementation for diarrhea on young children's physical growth and risk of infection: study design and rationale for a randomized controlled trial. *BMC Nutrition* 4: 39.
- 26. Watson S, Moore SE, Darboe MK, Chen G, Tu, Y-K, Huang Y-T, <u>Eriksen KG</u>, Bernstein RM, Prentice AM, Wild CP, Xu Y, Routledge MN, Gong YY. 2018. Impaired growth in rural Gambian infants exposed to aflatoxin: a prospective cohort study. *BMC Public Health* 18: 1247.
- 25. Turner TR, Bernstein RM, Taylor A, <u>Asangba A</u>, Bekelman T, Danzy Cramer J, Elton S, Harvati K, Williams-Hatala EM, Kauffman L, Middleton E, Richtsmeier J, Szathmáry E, Torres-Rouff C, Thayer Z, <u>Villaseñor A</u>, Vogel E. 2018. Participation, representation and shared experiences of women scholars in biological anthropology. *Yearbook of Physical Anthropology* 165: 126-157.
- 24. <u>Fardi S</u>, Sauther ML, Cuozzo FP, Jacky IAY, Bernstein RM. 2018. The effect of extreme weather events on hair cortisol and body weight in a wild ring-tailed lemur population (*Lemur catta*) in Southwestern Madagascar. *American Journal of Primatology* 80: e22731.
- 23. <u>Helfrecht C</u>, Hagen EH, DeAvila D, Bernstein RM, Dira SJ, Meehan CL. 2018. DHEAS patterning across childhood in three sub-Saharan populations: associations with age, sex, ethnicity, and cortisol. *American Journal of Human Biology* 30: e23090.
- 22. <u>Nabwera HM</u>, Bernstein RM, Agbla SC, Moore SE, Darboe MK, Colley M, Jallow AT, Bradbury R, Karafin J, Fulford AJ, Prentice AM. 2017. Hormonal correlates and predictors of nutritional recovery in malnourished African children. *Journal of Tropical Pediatrics* 64: 364-372.
- 21. Bernstein RM. 2017. Hormones, human and nonhuman primate growth. *Hormone Research in Paediatrics* 88: 15-21.
- 20. <u>Davis JCC</u>, Lewis ZT, Krishnan S, Bernstein RM, Moore SE, Prentice AM, Mills DA, Lebrilla CB, Zivkovic AM. 2017. Growth and morbidity of Gambian infants are influenced by maternal milk oligosaccharides and infant gut microbiota. *Scientific Reports* 7, 40466.

- 19. Bernstein RM. 2016. Comparative endocrinology of childhood growth. In: Meehan C, Crittenden A, eds. *Multiple Perspectives on the Evolution of Childhood*. SAR/University of New Mexico Press.
- 18. Power ML, Schulkin J, Drought H, Milligan L, <u>Murtough KL</u>, Bernstein RM. 2016. Patterns of milk macronutrients and several bioactive molecules across lactation in a western lowland gorilla (*Gorilla gorilla*) and a Sumatran orangutan (*Pongo abelii*). *American Journal of Primatology* 79: 1-11.
- 17. Bernstein RM, Hinde K. 2016. Bioactive factors in milk across lactation: maternal effects and influence on infant growth in rhesus macaques (*Macaca mulatta*). *American Journal of Primatology* 78: 838-850.
- 16. <u>Fourie NH</u>, Brown JL, Jolly CJ, Phillips-Conroy JE, Rogers J, Bernstein RM. 2016. Sources of variation in hair cortisol in wild and captive non-human primates. *Zoology* 119: 119-125.
- 15. <u>Fourie NH</u>, Turner TR, Brown JL, Grobler PJ, Lorenz JG, Bernstein RM. 2015. Variation in vervet (*Chlorocebus aethiops*) hair cortisol concentrations reflects ecological disturbance by humans. *Primates* 56: 365-373.
- 14. <u>Fourie NH</u>, Jolly CJ, Phillips-Conroy JE, Brown JL, Bernstein RM. 2015. Variation in hair cortisol concentrations in wild populations of two baboon species (*Papio anubis*, *P. hamadryas*) and a population of their natural hybrids. *Primates* 56: 259-272.
- 13. Bernstein RM, Dominy NJ. 2013. Mount Pinatubo, inflammatory cytokines, and the immunological ecology of Aeta hunter-gatherers. *Human Biology* 85: 231-250.
- 12. Bernstein RM, Drought H, Phillips-Conroy JE, Jolly CJ. 2013. Hormonal correlates of divergent growth trajectories in wild male anubis (*Papio anubis*) and hamadryas (*Papio hamadryas*) baboons in the Awash River Valley, Ethiopia. *International Journal of Primatology* 34: 732-751.
- 11. <u>Alesbury H</u>, Ubelaker D, Bernstein RM. 2013. Age-at-death estimation using the frontonasal suture in human crania. *Journal of Forensic Sciences* 58: 104-108.
- 10. Bernstein RM, Setchell J, Verrier D, Knapp L. 2012. Maternal effects and the endocrine regulation of mandrill growth. *American Journal of Primatology* 74: 890-900.
- 9. Conley A, Bernstein RM, Nguyen A. 2012. The evidence for, and the need to re-define, adrenarche in nonhuman primates. *Journal of Endocrinology* 214: 121-131.
- 8. Bernstein RM, Sterner K, Wildman D. 2012. Adrenal androgen production in catarrhine primates and the evolution of adrenarche. *American Journal of Physical Anthropology* 147: 389-400.
- 7. <u>Fourie N</u>, Bernstein RM. 2011. Hair cortisol levels track phylogenetic and age-related differences in hypothalamic-pituitary-adrenal (HPA) axis activity in non-human primates. *General and Comparative Endocrinology* 174: 150-155.
- 6. Bernstein RM. 2010. The big and small of it: how body size evolves. *Yearbook of Physical Anthropology* 143: 46-62.
- 5. Bernstein RM, Nadler T, Brown J, <u>Fourie N</u>. 2009. Variation in fecal glucocorticoid concentrations in captive red-shanked douc langurs (*Pygathrix nemeaus*). *Vietnamese Journal of Primatology* 3: 65-74.
- 4. <u>Stinespring Harris A</u>, Bernstein RM, Kuhle B. 2009. Predicting age at onset of menopause: testing the "adaptive onset" hypothesis. *Maturitas* 64: 193-195.
- 3. Bernstein RM, Leigh SR, Donovan S, Monaco M. 2008. Hormonal correlates of ontogeny in baboons (*Papio hamadryas anubis*) and mangabeys (*Cercocebus atys*). *American Journal of Physical Anthropology* 136: 156-168.

- 2. Bernstein RM, Leigh SR, Donovan S, Monaco M. 2007. Hormones and body size evolution in papionin primates. *American Journal of Physical Anthropology* 132: 247-260.
- 1. Leigh SR, Bernstein RM. 2006. Ontogeny, life history, and maternal investment in baboons. In: *Reproduction and Fitness in Baboons* (S. Leigh and L. Swedell, editors), Kluwer Academic/Plenum Publishers: New York.

Encyclopedia entries, comments, book reviews

- 8. Bernstein RM. 2018. Models of growth for humans and nonhuman primates. In: Trevathan W, ed. *The International Encyclopedia of Biological Anthropology*. John Wiley and Sons, Inc.
- 7. Bernstein RM. 2018. Evolution of human growth. In: Trevathan W, ed. *The International Encyclopedia of Biological Anthropology*. John Wiley and Sons, Inc.
- 6. Bernstein RM, Dufour DL. 2017. Worldwide Variation in Human Growth: 40 years later (Introduction to Special Section). *American Journal of Human Biology* 29: e22984.
- 5. Bernstein RM. 2017. Growth rates. In: Fuentes A, ed. *International Encyclopedia of Primatology*. John Wiley & Sons, Inc.
- 4. Bernstein RM. 2015. Comment on 'Children as a reserve labor force', by David Lancy. *Current Anthropology* 56: 554-555.
- 3. Bernstein RM. 2013. Review of *Building Babies: Primate Development in Proximate and Ultimate Perspective* (K.B.H. Clancy, K. Hinde, and J.N. Rutherford, editors). *International Journal of Primatology* 34: 641-643.
- 2. Bernstein RM. 2011. Topic Editor and Author, Growth and Development section. In: Wood BA, ed. *Wiley-Blackwell Encyclopedia of Human Evolution*. Wiley-Blackwell.
- 1. Bernstein RM. 2011. Topic Editor and Author, Life History section. In: Wood BA, ed. *Wiley-Blackwell Encyclopedia of Human Evolution*. Wiley-Blackwell.

External grant support

2018-20 (Mentor) "Effects of zinc alone versus multiple micronutrients on IGFBP3, IGF1 and growth in Laotian children"; Thrasher Research Fund (\$26,749)

2015-18 (co-PI) "Action through organization: supporting mentoring and networking for early career women scientists through the AAPA Women's Initiative"; The Elsevier Foundation New Scholars Award (\$48,000)

2012-20 (PI) "Identification of nutritionally modifiable hormonal and epigenetic drivers of positive and negative growth deviance in rural African fetuses and infants"; Bill and Melinda Gates Foundation (\$2,032,852)

2012-13 (co-PI) "A physiological perspective on bone strength"; Wenner-Gren Foundation (\$25,000)

2011-13 (PI) "Breast milk bioactives and the defense of gut and growth"; Bill and Melinda Gates Foundation (\$100,000)

2010-13 (co-PI) "Collaborative Research: A multidisciplinary, field based study of the little-known Kinda baboon (*Papio cynocephalus kindae*)"; National Science Foundation (\$22,658)

2009-11 (PI) "Endocrine correlates of growth and development in the Awash baboons"; National Science Foundation (\$222,399)

2008-09 (PI) "Hormonal correlates of divergent growth trajectories in male baboons"; International Primatological Society (\$1,500)

Internal grant support

2016 "Milk: nutrition and health shaped by cultural practices and the environment"; University of Colorado Population Center (\$9,000)

2012-13 "Making room for change: tracking policy creation and compliance for support of breastfeeding mothers in colleges and universities in the DC metro area"; George Washington Institute for Public Policy Research Scholar Fellowship (\$10,000)

2012-13 "Endocrine signaling via milk in primates: effects on infant growth, development, and the implications for the developmental origins of adult disease"; The George Washington University – Smithsonian Institution Opportunity Fund (\$40,000)

2011-12 "Breast milk, maternal signaling, and environmental change"; The George Washington University Facilitating Fund (\$25,132)

2009-10 "Hormones and divergent growth trajectories in male Awash baboons"; The George Washington University Facilitating Fund (\$16,078)

2007-08 "Genetic and hormonal correlates of growth and aging in great apes"; The George Washington University Dilthey Faculty Fellowship (\$22,003)

2006-07 "Stress and captivity in the red-shanked douc langur"; The George Washington University Facilitating Fund (\$14,038)

Published conference abstracts

2020

Leigh SR, <u>Naumenko DJ</u>, Affara N, Dunger DB, Ong KK, Prentice AM, Moore SE, Bernstein RM. Allometric correlates of infant mass growth rate variation. *American Journal of Physical Anthropology Suppl* 171: 158.

<u>Naumenko DJ</u>, Affara N, Dunger DB, Ong KK, Prentice AM, Moore SE, Bernstein RM. Short-term wasting, linear faltering, and Type X collagen. *American Journal of Physical Anthropology Suppl* 171: 196.

<u>Washabaugh JR</u>, Moore SE, Affara N, Dunger DB, Ong KK, Prentice AM, Bernstein RM. Milk macronutrient composition over the first year of lactation in a rural Gambian population and its effect on infant growth and health outcomes. *American Journal of Human Biology* 32.

2019

Bernstein RM, <u>Stanley Z</u>, Affara N, Dunger DB, Ong KK, Prentice AM, Moore SE. Integration of growth in head circumference, body length, and body weight in rural Gambian infants during the first year of life. *American Journal of Physical Anthropology Suppl* 168: 19.

<u>Bowland GB</u>, Van Gerven D, Bernstein RM. Analysis of cortisol levels from archaeological hair from the Medieval Nubian population of Kulubnarti. *American Journal of Physical Anthropology Suppl* 168: 26.

Dykes J, <u>Cummings JA</u>, <u>Naumenko DJ</u>, <u>O'Connor GK</u>, <u>Stanley Z</u>, Affara N, Dunger DB, Ong KK, Prentice AM, Moore SE, Bernstein RM. Quantifying growth pulses across the first year of life in rural Gambian infants. *American Journal of Physical Anthropology Suppl* 168: 65.

<u>Maidwell-Smith A</u>, <u>Doel A</u>, Bernstein RM, Moore SE. Hyperglycaemia first detected in pregnancy in sub-Saharan Africa: an estimate of the prevalence in rural Gambia and the diagnostic ability of capillary versus venous sampling. *BJOG: An International Journal of Obstetrics and Gynaecology* 126: 77.

Naumenko DJ, Dykes J, O'Connor GK, Stanley Z, Affara N, Dunger DB, Ong KK, Prentice AM, Moore SE, Bernstein RM. Quantifying growth faltering across the first year of life in rural Gambian infants. *American Journal of Physical Anthropology Suppl* 168: 173-174.

<u>Naumenko DJ</u>, Affara N, Dunger DB, Moore SE, Ong KK., Prentice AM, Bernstein RM. 2019, March. Head circumference growth trajectories from prenatal to postnatal life in rural Gambian infants: influences and implications. *American Journal of Human Biology* 31: 2.

O'Connor GK, Stanley Z, Dykes J, Naumenko DJ, Affara N, Dunger DB, Ong KK, Prentice AM, Moore SE, Bernstein RM. The infancy-childhood transition in rural Gambian infants. *American Journal of Physical Anthropology Suppl* 168: 179-180.

<u>Stanley Z</u>, Dykes J, <u>Naumenko DJ</u>, <u>O'Connor GK</u>, Affara N, Dunger DB, Ong KK, Prentice AM., Moore SE. Bernstein RM. Influence of sex, season of birth, and gestational age at delivery on growth in rural Gambian infants from birth to one year. *American Journal of Physical Anthropology Suppl* 168: 237.

<u>Stanley Z</u>, Dykes J, <u>Naumenko DJ</u>, <u>O'Connor GK</u>, Affara N, Dunger DB, Ong KK., Prentice AM, Moore SE, Bernstein RM. Predictive accuracy of short-term measurements for longer-term growth rates in rural Gambian infants. *American Journal of Human Biology* 31: 2.

<u>Washabaugh J</u>, Moore SE, Affara N, Dunger DB, Ong KK, Prentice AM. Bernstein RM. Breastfeeding and complementary feeding patterns in a rural Gambian population. *American Journal of Physical Anthropology Suppl* 168: 263.

2018

Bernstein RM, <u>Naumenko DJ</u>, <u>Washabaugh J</u>, Hinnouho G-M, Barffour MA, Wessells KR, Ratsavong K, Kounnavong S, Hess SY. 2018. Infant hair cortisol in central Lao PDR. *American Journal of Human Biology* 30: 2.

2017

Bernstein RM, <u>Davis JCC</u>, Lewis ZT, Krishnan S, Moore SE, Prentice AM, Mills DA, Lebrilla CB, Zivkovic A. 2017. Mother's milk oligosaccharides and infant gut microbiota: seasonality and infant outcomes in rural Gambia. *American Journal of Physical Anthropology Suppl* 162: 119.

<u>Fardi S</u>, Drammeh S, Doel A, Prentice AM, Moore SE, Bernstein RM. 2017. Neonatal hair cortisol in rural Gambian infants. *American Journal of Physical Anthropology Suppl* 162: 177.

<u>Gruca M</u>, Moore SE, Darboe MK, Prentice AM, Bernstein RM. 2017. Breast milk macronutrient content in rural West African mothers is impacted by season of infant birth and maternal energy balance. *American Journal of Physical Anthropology Suppl* 162: 202.

Waller MT, <u>Skinner S</u>, <u>Fardi S</u>, Bernstein RM, Young H. 2017. The effects of human surrogacy on hair cortisol levels in orphaned baboons (*Papio ursinus*). *American Journal of Physical Anthropology Suppl* 162: 401.

<u>Washabaugh J</u>, Bernstein RM, Secka A, Jeng M, Olaniyan O. 2017. Milking and market hygiene practices: quality of cow's milk in The Gambia. *American Journal of Human Biology* 29: 2.

2016

<u>Fardi S</u>, Bernstein R. 2016. Maternal environment, prenatal stress, and offspring cortisol reactivity: a meta-analysis. *American Journal of Physical Anthropology Suppl* 159: 141.

<u>Gruca M</u>, Moore S, Darboe M, Bernstein R. 2016. Prenatal supplementation, breast milk composition, and infant growth in rural Gambia. *American Journal of Physical Anthropology Suppl* 159: 163.

<u>Washabaugh J</u>, Moore S, Darboe M, Bernstein R. 2016. Predictors of skin infection in rural Gambian infants. *Breastfeeding Medicine* 11: A47.

2015

<u>Nabwera H</u>, Bernstein R, Jallow A, Jallow M, Prentice AM. 2015. Evaluating growth regulating hormones in rural Gambian children. *The FASEB Journal Suppl 29*: 579.3.

<u>Fardi S</u>, Bernstein R, Sauther M. 2015. Hair cortisol, climatic events, and age in wild ring-tailed lemur (*Lemur catta*) troops from the Beza Mahafaly Special Reserve, Southwestern Madagascar. *American Journal of Physical Anthropology Suppl* 156: 130.

2014

Zivkovic A, Bernstein R, <u>Huang A, Totten S, Lewis Z</u>, Mills D, Prentice A, Moore S, Lebrilla C. 2014. Milk glycan composition mediates gut microbiota, growth, and morbidity outcomes in Gambian infants. *The FASEB Journal Suppl* 28: 38.4.

Bernstein R, Moore S, Prentice A. 2014. To every thing there is a season: breast milk, infant growth, and birth seasonality in rural Gambia. *American Journal of Physical Anthropology Suppl I* 153: 77.

2013

Hinde K, Drought H, Wechsler M, Bernstein R. 2013. Bioactive factors in the milk of a non-human primate biomedical model. *The FASEB Journal Suppl 27*: 629.14.

Bernstein R, Drought H, Wechsler M, Hinde K. 2013. Bioactive factors in macaque milk: relationships with maternal physiology and infant growth. *American Journal of Physical Anthropology Suppl* 152: 79.

Power M, Schulkin J, Drought H, Hinde K, Bernstein R. 2013. Bioactive factors in milk: comparison across nonhuman primates and humans. *American Journal of Physical Anthropology Suppl* 52: 224.

Milligan LA, Bernstein R, Wright L, Drought H, Lewis C, <u>Murtough K</u>, Power M. 2013. Longitudinal changes in macronutrient and hormone concentration in orangutan milk during peak lactation. *American Journal of Physical Anthropology Suppl* 152: 199.

Drought H, Phillips-Conroy J, Jolly C, Bernstein R. 2013. Exploring hormonal correlates of small body size in the Kinda baboon (*Papio kindae*). *American Journal of Physical Anthropology Suppl* 52: 115.

<u>Fourie N</u>, Bernstein R, Porter L, Garber P. 2013. Hair cortisol concentrations in wild saddle back tamarins (Saguinus fuscicollis weddelli). American Journal of Physical Anthropology Suppl 52: 124.

Copes L, Drought H, Patel T, Bernstein R. 2013. Hormonal contributions to sex differences in baboon skeletal robusticity. *American Journal of Physical Anthropology Suppl* 52: 102.

<u>Payette C</u>, Copes L, Patel T, Bernstein R. 2013. The effects of locomotor category and sex on the ontogeny of skeletal robusticity in two strepsirrhine species (*Lemur catta* and *Propithecus verrauxi*). *American Journal of Physical Anthropology Suppl* 52: 146.

2012

<u>Fourie N</u>, Bernstein R, Phillips-Conroy J, Jolly C, Brown J. 2012. Variation in hair cortisol in wild anubis and hamadryas baboons and their hybrids. *American Journal of Physical Anthropology Suppl* 52: 146.

Copes L, Tommasini S, Patel T, Leigh S, Bernstein R. 2012. Biological co-adaptation of morphological and composition traits in weight-bearing and non-weight bearing bones of baboons. *J Bone Miner Res* 27 (*Suppl* 1).

2011

Bernstein R, Drought H, Phillips-Conroy J, Jolly C. 2011. Hormonal correlates of divergent growth trajectories in male anubis, hamadryas, and hybrid baboons. *Am J Phys Anthropology Suppl* 52: 89.

Sterner K, Church S, Wildman D, Bernstein R. 2011. Evolution of adrenarche in *Homo* and *Pan. Am J Phys Anthropology Suppl* 52: 285

<u>Fourie N</u>, Bernstein R. 2011. Quantification of cortisol in wild and captive nonhuman primate hair: methodological considerations and biological validation. *Am J Phys Anthropology Suppl* 52: 137.

2010-2000

Bernstein R, <u>Chirchir H, Fourie N</u>. 2010. Lemurs, hormones, and the pace of life histories: IGF-I and somatic growth in *Lemur*, *Eulemur*, *Propithecus* and *Varecia*. *Am J Phys Anthropology Suppl* 50: 66.

<u>Stinespring Harris A</u>, Bernstein R, Kuhle B. 2010. Is the age at onset of menopause adaptive?: putting the "adaptive onset" hypothesis to the test. *Am J Phys Anthropology Suppl* 50: 223.

Bernstein R, Setchell J, Wickings J. 2009. IGF-I and body mass ontogeny in male mandrills (*Mandrillus sphinx*). *Am J Phys Anthropology Suppl* 48: 90.

Leigh S, Bernstein R, Konigsberg L. 2009. Dental eruption, age estimation, and life histories in papionin primates. *Am J Phys Anthropology Suppl* 48: 174.

Stinespring A, Bernstein R. 2009. Are capuchins good models for the "grandmother" hypothesis?: What socio-spatial behavior of females with dependent infants can tell us. *Am J Phys Anthropoligy Suppl* 48: 248.

Bernstein R, Leigh S, Setchell J. 2008. Allometry and physiology: hormones, mass, and length. *Primate Eye* 96 (IPS 22nd Congress Proceedings): 158.

Bernstein R. 2007. The hormonal regulation of ontogeny in *Papio* and *Cercocebus*. *Am J Phys Anthropology Suppl* 44: 73.

Bernstein R. 2006. Hormones and growth in papionin primates. Am J Phys Anthropology Suppl 42: 64.

Bernstein R. 2005. Growth related hormones in great apes. Am J Phys Anthropology Suppl 40: 134.

Leigh S, Bernstein R. 2004. Evolution of primate life histories. Am J Phys Anthropology Suppl 38: 134.

Bernstein R, Leigh S, Donovan S, Monaco M. 2003. Integration among hormonal parameters of growth in baboons: implications for patterns of maturation and reproduction. *Am J Phys Anthropology Suppl* 36: 65.

Leigh S, Bernstein R. 2003. Ontogeny, life history, and maternal reproductive strategies in baboons. *Am J Phys Anthropology Suppl* 36: 138.

Bernstein R, Leigh S, Siegel M, Donovan S. 2002. IGF-I bioavailability and patterns of body size variation in *Papio* and *Cercocebus*. *Am J Phys Anthropology Suppl* 34: 44.

Bernstein R. 2001. Somatomedin secretion and patterns of growth in *Papio* and *Cercocebus*. *Am J Phys Anthropology Suppl* 32: 39.

Bernstein R, Rowan K, Leigh S. 2000. New dental age standards for baboons (*Papio hamadryas anubis*) and mangabeys (*Cercocebus atys*). *Am J Phys Anthropology Suppl* 30:107.

Invited talks

2019

- Lembersky Conference in Human Evolutionary Studies, Rutgers University: Advances in Primate Nutritional Ecology, Health, and Energetics (New Brunswick, NJ)
- Evolutionary Medicine: The Biocultural Perspective, Senckenberg Research Institute and Natural History Museum (Frankfurt, Germany)
- Bill & Melinda Gates Foundation: Modelling Physical Growth Above the Neck (Seattle, WA)

2018

- Boise State University: Northwest Evolution, Ecology, Human Behavior Symposium (Boise, ID)

2017

- Chatham University, Department of Biology: Lecture Series (Pittsburgh, PA)
- University of Las Vegas, Department of Anthropology: Colloquium Series (Las Vegas, NV)

2016

- Rutgers University: 'A Day of Revolutionary Thinking', 250th Anniversary (New Brunswick, NJ)
- Grand Challenges Annual Meeting (London, England)
- 18th International Society for Research in Human Milk and Lactation Conference (Stellenbosch, South Africa)
- International Primatological Society/American Society of Primatologists Joint Congress (Chicago, IL)

2015

- Plenary session, 40th Annual Meeting of the Human Biology Association (St. Louis, MO)
- Department of Integrative Physiology Colloquium Series (Boulder, CO)
- Anthropology Lecture Series, Rutgers University (New Brunswick, NJ)

2014

- Evolution and Human Adaptation Series, University of Michigan (Ann Arbor, MI)

2013

- Department of Anthropology, Southern Illinois University (Carbondale, IL)
- Department of Anthropology, University of Arkansas (Fayetteville, AR)
- Department of Biology, George Washington University (Washington, DC)

2012

- Department of Anthropology, University of Manitoba (Winnipeg, MB)

2011

- Paleoanthropology Lecture Series, Human Origins Program, Smithsonian Institution (Washington, DC)

2008

- New York Consortium in Evolutionary Primatology (NYCEP) Regional Primatology Colloquium (New York, NY)

Conference presentations

<u>Lemmers S</u>, Setchell J, Schwartz G, Reid D, Bernstein R, Leigh S, Ngoubangoye B, Herbert A, Dirks W. 2017. Histological analysis of dental development in *Mandrillus sphinx*. Primate Society of Great Britain Winter Meeting (Durham, England).

<u>Lemmers S</u>, Setchell J, Schwartz G, Reid D, Bernstein R, Leigh S, Ngoubangoye B, Herbert A, Dirks W. 2016. Comparative study of dental development in African papionins. International Primatological Society/American Society of Primatologists Joint Meeting (Chicago, IL)

<u>Fardi S</u>, Porter LM, <u>Erb WM</u>, Di Fiore A, Bernstein R. 2016. Hair cortisol in wild saddleback tamarins (*Leontocebus weddelli*). International Primatological Society/American Society of Primatologists Joint Meeting (Chicago, IL)

Bernstein R, Zivkovic A, <u>Huang J, Totten S, Lewis Z</u>, Mills D, Prentice A, Moore S, Lebrilla C. 2014. Milk, morbidity, and infant growth. 17th International Society for Research in Human Milk and Lactation Conference (Kiawah Island, SC)

Bernstein R, Zivkovic A, <u>Huang J, Totten S, Lewis Z</u>, Mills D, Prentice A, Moore S, Lebrilla C. 2014. Milk, morbidity, and infant growth. 10th Annual Grand Challenges Meeting (Seattle, WA)

<u>Fardi S</u>, Bernstein R, Sauther M. 2014. Climatic events and hair cortisol in two wild ring-tailed lemur (*Lemur catta*) troops from Beza Mahafaly Special Reserve, Southwestern Madagascar. 83rd Annual Meeting of the American Association of Physical Anthropologists: Undergraduate Research Symposium (Calgary, AB)

Bernstein R, Moore S, Prentice A. 2013. Breast milk, infant growth, and intestinal health in rural Gambia. 6th Annual Global Health Symposium: Colorado School of Public Health (Aurora, CO)

Bernstein R, Moore S, Prentice A. 2013. Seasonality, breast milk bioactives, and infant growth. 112th Annual Meeting of the American Anthropological Association (Chicago, IL)

Bernstein R, Drought H, Prentice AM, Moore SE. 2013. Breast milk bioactive factors in rural Gambian women and infant health and growth. Convening of Agriculture & Nutrition Awardees, Grand Challenges Explorations, Bill and Melinda Gates Foundation (Seattle, WA)

Bernstein R. 2012. Healthy growth: patterns and processes. 8th Annual Grand Challenges Meeting (Ottawa, ON)

Power M, Schulkin J, Drought H, Bernstein R. 2012. Growth factors and metabolic hormones in primate milk. 9th Biennial Symposium of the Comparative Nutrition Society (Pacific Grove, CA)

<u>Fourie N</u>, Bernstein R. 2010. Hair as a retrospective calendar of cortisol in wild and captive primates. 47th Annual Meeting of the Animal Behavior Society (Williamsburg, VA)

<u>Fourie N</u>, Bernstein R. 2009. Quantifying steroid hormones from the hair of wild primates. 8th Annual Meeting of the Primate Ecology and Genetics Group (Pretoria, South Africa)

TEACHING

University of Colorado Boulder (2013-)

ANTH 7620: Bridging Seminar: Race (co-Instructor with K. Roland)

ANTH 7020: Growth and Development

ANTH 4120/5120: Advanced Biological Anthropology

Fall 2014/5: Hormones and Behavior Fall 2016: Evolutionary Medicine Fall 2017: Maternal and Child Nutrition

ANTH 2020: Human biological variation and adaptation

Federal Bureau of Investigation (2006-2012)

Forensic Audio, Video, & Image Analysis Unit: Surface and Developmental Anatomy

George Washington University (2004-2013)

ANTH 1001: Biological Anthropology

ANTH 1005: Biological Bases of Human Behavior ANTH 3405/6405: Human Growth and Development ANTH 6102: Proseminar in Biological Anthropology

ANTH 6404: Primate Life Histories ANTH 8001: Hormones and Behavior

HOMP 8301: Problem-Based Learning Seminar

ANAT 6210: Medical Gross Anatomy (GWU Medical School)

University of Illinois at Urbana-Champaign (2000-2004)

MCB 244: Human Anatomy and Physiology ANTH 102: Human Origins and Culture

MENTORING

Doctoral Dissertations (¹Primary advisor, ²Committee member)

In prog ¹Daniel Naumenko, University of Colorado Boulder

In prog ¹Jennifer Washabaugh, University of Colorado Boulder

2020 ²Richard Bender, University of Colorado Boulder. *Do protein content and protein quality influence human food intake? Testing the protein leverage hypothesis.*

2017 ²Andie Ang, University of Colorado Boulder. *Genetic variability, diet metabarcoding, and conservation of Colobine primates in Vietnam.*

2016 ²Erica Tennenhouse, University of Toronto. *Unique lemur traits: proximate and ultimate perspectives*.

2015 ²Courtney Helfrecht, Washington State University. *Effects of stress on onset of middle childhood among Sidama agropastoralists*.

2012 ¹Nicolaas Fourie, George Washington University. *Hair cortisol in wild and captive primates:* environmental effects and behavioral phenotypes.

2012 ²Felicia Gomez, George Washington University. *Patterns of genetic diversity and signatures of natural selection at the intercellular adhesion molecule-1 (ICAM-1) and CD36 loci in humans.*

2010 ²David Green, George Washington University. *Shoulder functional anatomy and development: implications for interpreting early hominin evolution.*

2008 ²Lisa Nevell, George Washington University. *Hominin cranial base evolution and genes implicated in basioccipital development: role of Pax7, Fgfr3 and Disp1 in basioccipital development and integration.*

Masters Theses (¹Primary advisor, ²Committee member)

2017 ¹Sara Fardi, University of Colorado Boulder. *Neonatal hair cortisol in relation to maternal environment, sociodemographic factors, and infant birth and growth outcomes in rural Gambia*

2017 ¹Margaret Gruca, University of Colorado Boulder. *Impact of maternal physiology and environment on breast milk macronutrient content and infant growth in rural West Africa.*

2017 ¹Jennifer Washabaugh, University of Colorado Boulder. *Milk hygiene and consumption practices in The Gambia*.

2017 ²Brandice Evans, University of Georgia. *Psychosocial stress, race, and social support among breastfeeding mothers in the American South.*

2008 ¹Diana Durand, George Washington University. *Examining the relationship between chin size and facial prognathism in humans.*

2007 ¹Rhonda Coolidge, George Washington University. *A biocultural analysis of fracture patterns in the Terry Collection.*

Senior Honors Theses (¹Primary advisor, ²Committee member)

University of Colorado Boulder

2019 ¹Grace Bowland, Exploration of hair cortisol concentrations and implications of stress in hunting dogs in the Bosawas Biosphere Reserve, Nicaragua

2018 ²Emily Martin, *The art of dealing with the gods: Balinese women and ritual labor*

2017 ²Sydney Martin, *Applications of near-infrared spectroscopy in physical anthropology and primate ecology*

2016 ²Ian Harryman, Ecological problem solving: a comparative study of primate conservation

2014 ²Layne Bronson, Fertility and agency: reproductive decisions in modern day Rome

2014 ²Megan Barrie, *Nepali youth in America: a contemporary look at cultural identity, community, and ties to 'home'*

2013 ²Logan Singletary, Habitat use and ranging behavior of Saimiri oerstedii oerstedii on the Peninsula de Osa, Costa Rica, and implications for conservation

George Washington University

2013 ¹Alexandria Gregory, *Testing the metabolic crossover hypothesis as an explanation of modern human gestation length*

2010 ¹Helen Alesbury, Age at death estimation using the frontonasal suture in human skeletal remains

2008 ¹Lance Levenson, The ontogeny of primate canine dimorphism as related to sexual selection and intrasexual competition: a comparison of canine dimorphism in the permanent and deciduous dentitions

2008 ¹Erica Parris, Assessing the effects of locomotor behavior on limb morphology and accuracy of body mass estimations in Strepsirhines

2008 ¹Lia Schwartz, Sex differences in aggressive and affiliative behavior of orphaned Chacma baboons

2006 ¹Michaela Huffman, Sex identification in the pelvis: a reexamination of base-wing measurements, sacral anterior curvatures, and os pubis ventral arc

Laboratory training and laboratory research mentorship

CU Boulder (2013-)

Visiting Postdoctoral Researcher: Maxwell Barffour

Graduate students: Sara Fardi, Margaret Gruca, Daniel Naumenko, Jennifer Washabaugh

Undergraduate and high school students: Kendall Abady, Anya Boardman, Grace Bowland, Larkin

Broussard, Sara Fardi, Gabriella Mayne, Jacks Pasteur, Robin Reibold, Brandon Stavig

George Washington University (2004-2013)

Postdoctoral researcher: Lynn Copes

Graduate students: Kallista Bernal, Habiba Chirchir, Nicolaas Fourie, Nicole Griffin, Shane Lutz,

Jordan Miller, Katherine Murtough, Kaitlin Wellens

Undergraduates: Victoria Eiss (George Gamow fellow), Shanae Helm (University of South Carolina, NSF-REU fellow), Sarah Hillware, Michael Holland, Alexandra Kralick, Marta Ostromecki (NSF-REU fellow), Erica Parris, Christopher Payette, Sadhvi Saxena (University of Maryland), Hien Truong (Columbia University)

SERVICE

Professional service

- 2019 <u>co-Organizer</u>: 'Mentoring the Mentor: A mentor training workshop', American Association of Physical Anthropologists annual meeting (Cleveland, OH)
- 2019- <u>Judge</u>: Student prize committee, American Association of Physical Anthropologists annual meeting (Cleveland, OH)
- 2018 <u>co-Facilitator</u>: Open discussion on development of an association-based mentoring program (AAPA annual conference, Austin, TX)
- 2017-20 Panelist: National Science Foundation
- 2017 <u>co-Editor</u>: Special section of *American Journal of Human Biology* (2016 HBA Plenary)
- 2017 <u>Facilitator</u>: Workshop for Women Primatologists and Biological Anthropologists (Durham, UK)
- 2016 <u>Organizer</u>: Workshop for Women Biological Anthropologists (Boulder, CO)
- 2016 <u>co-Organizer</u>: Human Biology Association Annual Meeting Plenary Session: *Worldwide Variation in Human Growth 40 Years Later* (Atlanta, GA)
- 2016 <u>co-Chair</u>: Committee on Diversity Women's Initiative Graduate Student Professional Development Workshop (Atlanta, GA)
- 2015 <u>co-Chair</u>: Committee on Diversity Women's Initiative Early-Career Women's Professional Development Workshop (St. Louis, MO)
- 2015 <u>Member</u>: Ad-hoc subcommittee of Ethics Committee, co-author of the American Association of Physical Anthropologists statement on sexual harassment and assault
- 2014 <u>co-Chair</u>: Committee on Diversity Women's Initiative Mid-Career Women's Professional Development Workshop (Calgary, Canada)
- 2013-17 Associate Editor: Yearbook of Physical Anthropology
- 2013- <u>co-Chair</u>: Women's Initiative, Committee on Diversity, American Association of Physical Anthropologists
- 2013-14 Chair: Childcare Committee, American Association of Physical Anthropologists

- 2008- Ad hoc grant review: National Science Foundation; The Leakey Foundation; Wenner-Gren Foundation; The Canada Foundation for Innovation; PRESTIGE Marie Curie Program; India Alliance/DBT Wellcome Trust; University of Nebraska
- 2008 <u>Symposium organizer</u>: *Primate body size: a multiple-level perspective*. 22nd Congress of the International Primatological Society (Edinburgh, Scotland)
- 2005- Book review: Oxford University Press, Cambridge University Press
- 2004- <u>Manuscript review</u>: American Journal of Human Biology; American Journal of Physical Anthropology; American Journal of Primatology; Current Anthropology; Human Nature; International Journal of Primatology; Journal of Anatomy; Journal of Endocrinology; Journal of Human Evolution; Journal of Medical Primatology; Maternal and Child Nutrition; Pediatrics; Peer J; Proceedings of the Royal Society B: Biological Sciences; Psychoneuroendocrinology

University Service

University of Colorado, Boulder

- 2020- Faculty Director of Faculty Development, Faculty Relations, Office of Faculty Affairs
- 2018-19 ARPAC Internal Review Committee, Department of Integrative Physiology
- 2018- Faculty Advisor, Alpha Phi Omega National Service Fraternity
- 2018-19 Facilitator, Faculty Teaching Excellence Program Symposium ('Teaching Large Classes')
- 2017-19 Chair, Department of Anthropology Climate Committee
- 2017- Faculty Advisor, Biological Anthropology Graduate Student RSO
- 2016-17 Department of Anthropology Climate Survey Analysis Committee
- 2016-18 CARTSS Advisory Board Member
- 2016-17 Administrator Evaluation Committee, Arts and Sciences Member
- 2014-16 Boulder Faculty Assembly, Anthropology Representative
- 2013-16 Department of Anthropology Graduate Program Committee
- 2013-16 Honors Council, University of Colorado Honors Program
- 2013-16 ASSETT Advisory Committee, College of Arts & Sciences

George Washington University

- 2011-12 Steering Committee, Breastfeeding Friendly University Project
- 2011 Anthropology Department Search Committee
- 2010-11 Columbian College GPAC Science Subcommittee
- 2004-11 Hominid Paleobiology Admissions and Steering Committees
- 2008-10 Colonial Inauguration Advising
- 2008-09 Anthropology Department Curriculum Committee
- 2007-09 Anthropology Department Website Committee
- 2006-12 Head undergraduate advisor, Department of Anthropology
- 2005-09 Anthropology Department Graduation & Commencement
- 2005-08 Cotlow Student Research Awards Committee
- 2005 Anthropology & Psychology Department Search Committees
- 2004-12 Major advisor, Biological Anthropology

PROFESSIONAL MEMBERSHIPS

American Association of Physical Anthropologists, Human Biology Association, International Primatological Society