

Kristi L. Lewton, Ph.D.
Curriculum vitae, November 2024

Department of Medical Education
Division of Integrative Anatomical Sciences
Keck School of Medicine, University of Southern California
1333 San Pablo St.
Los Angeles, CA 90033-9112

Office: +1 323-442-1629
Fax: +1 323-442-2411
lewton@usc.edu
www.kristilewton.com

ACADEMIC APPOINTMENTS

- 2020-present **Associate Professor** of Clinical Integrative Anatomical Sciences, University of Southern California, Keck School of Medicine, Department of Medical Education (Primary appointment, formerly Department of Integrative Anatomical Sciences)
- 2020-present Adjunct Associate Professor, Division of Biokinesiology & Physical Therapy, Herman Ostrow School of Dentistry, University of Southern California (Secondary appointment)
- 2020-present Adjunct Associate Professor, Department of Biological Sciences, University of Southern California (Secondary appointment)
- 2019-2020 Adjunct Assistant Professor, Division of Biokinesiology & Physical Therapy, Herman Ostrow School of Dentistry, University of Southern California (Secondary appointment)
- 2017-present **Research Associate** in Mammalogy, Natural History Museum of Los Angeles County
- 2016-2020 Adjunct Assistant Professor, Department of Biological Sciences, University of Southern California (Secondary appointment)
- 2015-2020 **Assistant Professor** of Clinical Integrative Anatomical Sciences, University of Southern California, Keck School of Medicine, Department of Integrative Anatomical Sciences (Primary appointment)
- 2014-2015 **Assistant Professor**, Boston University School of Medicine, Department of Anatomy & Neurobiology
- 2014-2015 **Associate**, Harvard University, Department of Human Evolutionary Biology
- 2010-2013 **Preceptor** in Evolutionary Anatomy & Physiology, Harvard University, Department of Human Evolutionary Biology

EDUCATION

- 2010 Ph.D., Arizona State University, Anthropology
Dissertation title: "Locomotor function and the evolution of the primate pelvis."
- 2004 M.A., Arizona State University, Anthropology
Thesis title: "Epigenetic differences in articular surface area in captive and wild chimpanzees (*Pan troglodytes*)"

2002 B.A., University of Washington, Anthropology (With Distinction)

GRANTS

External - PI

- 2022-2023 National Science Foundation RAPID Research Grant BCS-2229742
“Sensorimotor function in complex environments in a strepsirrhine
neuroanatomical model species” (co-PI)
- 2020-2024 National Science Foundation Research Grant BCS-1944571 “Hindlimb
cortical bone adaptation and locomotion in primates” (PI)
- 2013 American Association of Physical Anthropologists Professional
Development Grant
- 2007 The Leakey Foundation Research Grant
- 2007 National Science Foundation Doctoral Dissertation Improvement Grant
BCS-0752575 “Doctoral Dissertation Improvement: Locomotor function
and the evolution of the primate pelvis”
- 2006 Sigma Xi Grant-in-Aid of Research

External – Senior Personnel

- 2024-2027 National Science Foundation Research Grant Proposal BCS-2419597
“Characterizing hominin diversification through an ecological approach,”
PIs Amy Rector (VCU) & Brian Villmoare (UNLV)

Internal

- 2024 Undergraduate Research Associates Program, USC
- 2023 Undergraduate Research Associates Program, USC
- 2022 Undergraduate Research Associates Program, USC
- 2021 Undergraduate Research Associates Program, USC
- 2020 Undergraduate Research Associates Program, USC
- 2019 Undergraduate Research Associates Program, USC
- 2018 Undergraduate Research Associates Program, USC
- 2017 Zumberge Individual Research Award, USC
- 2017 Undergraduate Research Associates Program, USC
- 2005-2010 Conference travel grants, Graduate and Professional Student Association,
Arizona State University
- 2008 Dissertation Research Grant, Graduate and Professional Student
Association, Arizona State University
- 2006-2007 Research grants, School of Human Evolution and Social Change, Arizona
State University

2006-2007 Conference travel grant, School of Human Evolution and Social Change, Arizona State University (totaling \$550)

PUBLICATIONS

Peer-Reviewed Journal Articles († Indicates student co-author, *indicates invited)

- 2024 ***Lewton** KL. An integrative approach to examining the influences of size, phylogeny, and locomotion on os coxae shape variation in primates. *American Journal of Biological Anthropology* 183(3):e24665 DOI: [10.1002/ajpa.24665](https://doi.org/10.1002/ajpa.24665)
- 2023 Cannon J, Rankin JW, **Lewton** KL, Liu J, Powers CM. Femoral and acetabular features explain acetabular contact pressure sensitivity to hip internal rotation in persons with cam morphology: a finite element analysis. *Clinical Biomechanics* 107. DOI: [10.1016/j.clinbiomech.2023.106025](https://doi.org/10.1016/j.clinbiomech.2023.106025)
- 2022 Sarringhaus L, **Lewton** KL, Iqbal S, Carlson KJ. Ape femoral-humeral rigidities and arboreal locomotion. *American Journal of Biological Anthropology* 179(4):624-639. DOI: [10.1002/ajpa.24632](https://doi.org/10.1002/ajpa.24632)
- 2022 Young M, Richard D, Grabowski M, Auerbach BM, de Bakker BS, Hagoort J, Muthuirulan P, Kharker V, Kurki HK, Betti L, Birkenstock L, **Lewton** KL, Capellini TD. The developmental impacts of natural selection on human pelvic morphology. *Science Advances* 8(33): eabq4884. DOI: [10.1126/sciadv.abq4884](https://doi.org/10.1126/sciadv.abq4884)
- 2022 Wennemann SE, **Lewton** KL, Orr CM, Almécija S, Tocheri MW, Jungers WL, Patel BA. A geometric morphometric approach to investigate primate proximal phalanx diaphysis shape. *American Journal of Biological Anthropology* 177(3):581-602. DOI: [10.1002/ajpa.24460](https://doi.org/10.1002/ajpa.24460)
- 2022 **Lewton** KL, †Cardenas E-E, †Cruz D, †Morales J, Patel BA. Bone volume in the distal calcaneus correlates with body size but not leap frequency in galagids. *American Journal of Biological Anthropology* 177(1):27-38. DOI: [10.1002/ajpa.24411](https://doi.org/10.1002/ajpa.24411)
- 2022 Amorim CEG, Dasari M, Durgavich L, Hinde K, Kissel M, **Lewton** KL, Loewen T. Integrative approaches to dispersing science: a case-study of March Mammal Madness. *American Journal of Human Biology* 34(S1):e23659. DOI: [10.1002/ajhb.23659](https://doi.org/10.1002/ajhb.23659)
- 2021 Liu J, **Lewton** KL, Colletti PM, Powers CM. 2021. Hip adduction during running: influence of sex, hip abductor strength and activation, and pelvis and femur morphology. *Medicine & Science in Sports & Exercise* 53(11):2346-2353. DOI: [10.1249/MSS.0000000000002721](https://doi.org/10.1249/MSS.0000000000002721)
- 2021 Hinde K, CEG Amorim, AF Brokaw, N Burt, M Casillas, A Chen, T Chestnut, PK Connors, M Dasari, CF Ditelberg, J Dietrick, J Drew, L Durgavich, B Easterling, C Henning, A Hilborn, EK Karlsson, M Kissel, J Kobylecky, J Krell, DN Lee, KM Lesciotto, KL **Lewton**, JE Light, J Martin, A Murphy, W Nickley, A Núñez-de la Mora, O Pellicer, V Pellicer, AM Perry, SG Schuttler, AC Stone, B Tanis, J Weber, M Wilson, E Willcocks, CN

- Anderson. 2021. March Mammal Madness and the power of narrative in science outreach. *eLife* 10:e65066 DOI: [10.7554/eLife.65066](https://doi.org/10.7554/eLife.65066)
- 2020 **Lewton** KL, †Brankovic R, †Byrd WA, †Cruz D, †Morales J, †Shin S. 2020. The effects of phylogeny, body size, and locomotor behavior on the three-dimensional shape of the pelvis in extant carnivorans. *PeerJ* 8:e8574 DOI: [10.7717/peerj.8574](https://doi.org/10.7717/peerj.8574)
- 2020 **Lewton** KL and Patel BA. 2020. Calcaneal elongation and bone strength in leaping galagids. *American Journal of Physical Anthropology* 171:430-438. DOI: [10.1002/ajpa.23970](https://doi.org/10.1002/ajpa.23970)
- 2019 Sollaccio DR, Navo P, Ghiassi A, Orr CM, Patel BA, **Lewton** KL. 2019. Evaluation of articular surface similarity of hemi-hamate grafts and proximal middle phalanx morphology: a 3D geometric morphometric approach. *Journal of Hand Surgery* 44(2):121-128. DOI: [10.1016/j.jhsa.2018.06.008](https://doi.org/10.1016/j.jhsa.2018.06.008)
- 2019 **Lewton** KL, Ritzman T, Copes LE, Garland T Jr, Capellini TD. 2019. Exercise-induced loading increases ilium cortical area in a selectively bred mouse model. *American Journal of Physical Anthropology* 168(3):543-551. DOI: [10.1002/ajpa.23770](https://doi.org/10.1002/ajpa.23770)
- 2017 **Lewton** KL. 2017. The effects of captive versus wild rearing environments on long bone articular surfaces in common chimpanzees (*Pan troglodytes*). *PeerJ* 5:e3668 DOI: [10.7717/peerj.3668](https://doi.org/10.7717/peerj.3668)
- 2017 **Lewton** KL and Scott JE. 2017. Ischial form as an indicator of bipedal kinematics in early hominins: a test using extant anthropoids. *Anatomical Record* 300(5):845-858. DOI: [10.1002/ar.23543](https://doi.org/10.1002/ar.23543)
- 2016 **Lewton** KL and Dingwall HL. 2016. Morphological convergence in the pubis of slow-moving primates and xenarthrans. *American Journal of Physical Anthropology* 161(3):381-397. DOI: [10.1002/ajpa.23038](https://doi.org/10.1002/ajpa.23038)
- 2015 Warrener AG, **Lewton** KL, Pontzer H, Lieberman DE. 2015. A wider pelvis does not increase locomotor cost in humans, with implications for the evolution of childbirth. *PLOS ONE* 10(3): e0118903. DOI: [10.1371/journal.pone.0118903](https://doi.org/10.1371/journal.pone.0118903)
- 2015 Morgan ME, **Lewton** KL, Kelley J, Otárola-Castillo E, Barry JC, Flynn LJ, Pilbeam DR. 2015. A partial hominoid innominate from the Miocene of Pakistan: description and preliminary analyses. *Proceedings of the National Academy of Sciences* 112(1):82-87. DOI: [10.1073/pnas.1420275111](https://doi.org/10.1073/pnas.1420275111)
- 2015 **Lewton** KL. 2015. Allometric scaling and locomotor function in the primate pelvis. *American Journal of Physical Anthropology* 156:511-530. DOI: [10.1002/ajpa.22696](https://doi.org/10.1002/ajpa.22696)
- 2015 **Lewton** KL. 2015. *In vitro* strain distributions in a sample of primate pelvises. *Journal of Anatomy* 226(5):458-477. DOI: [10.1111/joa.12294](https://doi.org/10.1111/joa.12294)
- 2015 ***Lewton** KL. 2015. Pelvic form and locomotor adaptation in strepsirrhine primates. *Anatomical Record* 298(1):230-248. DOI: [10.1002/ar.23070](https://doi.org/10.1002/ar.23070)

- 2012 **Lewton** KL. 2012. Evolvability of the primate pelvic girdle. *Evolutionary Biology* 39(1):126-139. DOI: [10.1007/s11692-011-9143-6](https://doi.org/10.1007/s11692-011-9143-6)
- 2012 ***Lewton** KL. 2012. Complexity in biological anthropology in 2011: species, reproduction, and sociality. *American Anthropologist* 114(2):196-202. DOI: [10.1111/j.1548-1433.2012.01418.x](https://doi.org/10.1111/j.1548-1433.2012.01418.x)

Peer-Reviewed Book Reviews

- 2021 **Lewton** KL. [Review of Skeletal Anatomy of the Newborn Primate, by TD Smith, VB DeLeon, CJ Vinyard, JW Young]. *American Journal of Physical Anthropology* 176(1):152-153. DOI: [10.1002/ajpa.24344](https://doi.org/10.1002/ajpa.24344)

Book Chapters and Invited Commentaries

- 2017 **Lewton** KL. 2017. Bipedalism. In: Fuentes A, editor. *International Encyclopedia of Primatology*. Wiley Blackwell Publishers.
- 2015 Nalley TK and **Lewton** KL. 2015. From the ground up: integrative research in primate locomotion. *American Journal of Physical Anthropology* 156:495-497. DOI: [10.1002/ajpa.22725](https://doi.org/10.1002/ajpa.22725)

PUBLISHED ABSTRACTS / CONFERENCE PRESENTATIONS (*Invited,

†Student/trainee co-author)

†Haffie J, †Knitt CA, †Smith R, †Solís M, Patel BA, Seiffert ER, **Lewton** KL. Cross-sectional geometry indicates functional differentiation of the calcaneus and navicular of primate leapers. Submitted for presentation at American Association of Biological Anthropologists, Baltimore, MD March 2025.

*Hinde K, Beasley M, Chestnut T, Durgavich L, Henning C, Kissel M, **Lewton** KL, Popescu J, Stone A. Transforming science into illustrated stories. Submitted for presentation at American Association of Biological Anthropologists, Baltimore, MD March 2025.

Lewton KL, Hammond AS, Alamsyah N, Noerwidi S, Sutikna T, Skinner MM, Tocheri MW. Functional implications of comparative morphology of the pelvis of *Homo floresiensis*. Submitted for presentation at American Association of Biological Anthropologists, Baltimore, MD March 2025.

Lewton KL, †Haffie J, †Hsu KC, †Knitt CA. Tests of morphological convergence in hindlimb bone cross-sectional properties in saltatory primates, rodents, and marsupials. *American Journal of Biological Anthropology* 183(S77):100. [Poster]

*Rector AL, Edmonds H, Hodgkins J, **Lewton** KL, Nalley TK, Shapiro A, Smail IE, Vergamini D, Vergamini M. Kaye Reed's impact on paleoanthropology: a network analysis. *American Journal of Biological Anthropology* 183(S77):144. [Poster]

*Villmoare B, **Lewton** KL. The evolution and development of the bicondylar angle. *American Journal of Biological Anthropology* 183(S77):188-189. [Poster]

Lewton KL, †Hsu KC, †Knitt CA, †Schtul KL, †Solís MP. 2023. Size and locomotor influences on hindlimb bone cross-sectional properties in saltatory rodents,

- marsupials, and primates. [Podium, International Congress of Vertebrate Morphology, Australia, July 2023]
- †Hsu KC, †Knitt CA, **Lewton** KL. 2023. Cortical bone strength properties in the hindlimb of saltatory primates, rodents, and marsupials. *American Journal of Biological Anthropology* 180(S75):79-80. [Poster]
- Kemp AD, **Lewton** KL. 2023. Comparative perspective on gaze during naturalistic locomotion in humans. *American Journal of Biological Anthropology* 180(S75):90. [Poster]
- †Knitt CA, †Hsu KC, **Lewton** KL. 2023. Scaling of femoral and tibial cross-sectional properties with body size in prosimian primates. *American Journal of Biological Anthropology* 180(S75):93. [Poster]
- *Rector AL, Delezene LK, **Lewton** KL, Nalley TK, Vergamini DH, Vergamini M. 2023. The legacy of Bill Kimbel's impact on paleoanthropology: a network analysis of his work. *American Journal of Biological Anthropology* 180(S75):146. [Poster]
- Cannon J, Rankin JW, **Lewton** KL, Powers CM. 2022. Femoral and acetabular features explain acetabular contact pressure sensitivity to hip internal rotation in persons with cam morphology: A finite element analysis. [Podium; presented at North American Congress on Biomechanics, August 21 – 25, 2022, Ottawa, Ontario]
- †Solís MP and **Lewton** KL. 2022. Intralimb patterns of diaphyseal cross-sectional properties of the femur and calcaneus in vertical clinger and leapers. *American Journal of Biological Anthropology* 177(S73):172. [Poster]
- Capellini TD, Young M, Richard D, Grabowski M, Auerbach B, De Bakker B, Hagoort J, Muthuirulan P, Kurki H, Betti L, **Lewton** K. 2022. The developmental impacts of natural selection on human pelvic morphology. *American Journal of Biological Anthropology* 177(S73):28. [Podium]
- Lewton** KL. 2020. Relationships among three-dimensional os coxae shape, locomotor behavior, phylogeny, and size in haplorhine and strepsirrhine primates. *American Journal of Physical Anthropology* 171(S69):160. [Poster, presented April 2021]
- †Wennemann SE, **Lewton** KL, Orr CM, Almécija S, Patel BA. 2020. A geometric morphometric approach to quantify the longitudinal curvature of primate proximal phalanges from 3D surface data. *American Journal of Physical Anthropology* 171(S69):305. [Poster]
- †Liu J, **Lewton** KL, Powers CM. 2019. Hip adduction and knee valgus during running: an issue of muscle strength or bony morphology? 27th Congress of the International Society of Biomechanics, Calgary, Canada, 7/31/19-8/4/19. [Poster]
- †Cruz D, †Morales J, **Lewton** KL. 2019. Evolutionary morphology, shape, and locomotor function of the pelvis in carnivorans. 21st Annual Undergraduate Symposium for Scholarly and Creative Work, 4-10-19, USC. [Poster]
- Lewton** KL and Patel BA. 2019. Lighten the load: calcanei of leaping galagids have relatively less cortical bone volume than quadrupedal species. *American Journal of Physical Anthropology* 168(S68):143. [Podium]

- Lewton** KL and Patel BA. 2018. Bone strength properties of the calcaneus and navicular in leaping galagids. *American Journal of Physical Anthropology* 165(S66):158. [Podium]
- †Vergamini M, †Smail IE, **Lewton** KL, Reed KE, Rector AL. 2018. Using ecomorphology of modern cercopithecoids for retrodiction of locomotor behavior of the fossil primate community of the Hadar and Ledi-Geraru sites, Afar Region, Ethiopia. *American Journal of Physical Anthropology* 165(S66):287. [Poster]
- †Brankovic R and **Lewton** KL. Three-dimensional shape and locomotor function of the carnivoran pelvis. 20th Annual Undergraduate Symposium for Scholarly and Creative Work, 4-11-18, USC. [Poster, Honorable Mention]
- †Navo P, Sollaccio DR, †Rosario S, †Rounds A, Ghiassi A, Orr CM, Patel BA, **Lewton** KL. Evaluation of Articular Surface Similarity of Hemi-hamate Grafts and Proximal Middle Phalanx Morphology: a 3D Geometric Morphometric Approach. Presented at the Orthopaedic Research Society Annual Meeting, March 11-12, 2018, New Orleans. [Poster]
- Light JE, Maher SP, Anderson CN, Apkenas V, Drew JA, Henning C, **Lewton** KL, Tanis BP, Hinde K. March Mammal Madness: Communicating science and art across social media. 97th annual meeting of the American Society of Mammalogists, June 20-24, 2017
- ***Lewton** KL. 2017. Functional analysis of lower ilium shape and robusticity in Plio-Pleistocene hominins. *American Journal of Physical Anthropology* 162(S64):262. [Poster]
- †Vergamini M, Rector AL, **Lewton** KL. 2017. Ecomorphology of the fossil monkey community of the Hadar and Ledi-Geraru sites, Afar Region, Ethiopia. *American Journal of Physical Anthropology* 162(S64):395. [Poster]
- Lewton** KL, Ritzman TB, Copes LE, Garland Jr T, Capellini TD. 2016. Effects of exercise-induced loading on internal bone morphology of the mouse ilium: implications for lower ilium robusticity in primates. *American Journal of Physical Anthropology* 159(S62):208. [Poster]
- Lewton** KL. 2015. Morphological convergence in the pelvis of slow-moving sloths and lorises. *American Journal of Physical Anthropology* 156(S60):203. [Podium]
- *Anderson CN, **Lewton** KL, Drew JA, Hinde K. 2015. Are you ready to rumble?! Sports championship mimicry to educate about adaptations, community ecology, and conservation. *American Journal of Physical Anthropology* 156(S60):69. [Poster]
- †Costa S and **Lewton** KL. 2015. Obstetrical implications of sexual dimorphism in hominoid os coxae. *The FASEB Journal*, 29(1): 696.1. [Poster]
- Lewton** KL. 2014. Morphological convergence in the pelvis of sloths and primates. Mid-Atlantic Bioanthropology Interest Group, Richmond, VA, 10-25-14. [Podium]
- ***Lewton** KL. 2014. Postcranial mosaicism in the hominin fossil record: resolving locomotor adaptive signal from morphological noise. *American Journal of Physical Anthropology* 153(S58):169. [Podium]

- ***Lewton** KL. 2013. Dissection and coalescence: comparative and experimental approaches to understanding hip form and function. American Anthropological Association, Chicago, 11-21-13. [Podium]
- Lewton** KL. 2013. Development, integration, and modularity of the pelvis: implications for fossil hominin evolution. European Society for the study of Human Evolution, Vienna, Austria 9-21-13. [Podium]
- Lewton** KL. 2013. Allometry and function of primate pelvises. American Association of Anatomists, Boston, 4-22-13. [Poster]
- Lewton** KL. 2013. Allometry and function of primate pelvises. *The FASEB Journal* 27(1):755.9. [Podium]
- Kuykendall KL, Reid A, **Lewton** KL, Brink J, Villmoare B. 2013. The South African Palaeocave Survey: A Regional GIS approach in palaeoanthropology. *American Journal of Physical Anthropology* 150(S56):175. [Podium]
- ***Lewton** KL. 2013. What is the role of geometric morphometrics in testing functional hypotheses? A case study using 3D pelvic shape. *American Journal of Physical Anthropology* 150(S56):180. [Poster]
- Kuykendall KL, Reid A, **Lewton** K, Brink J, Villmoare B. 2012. The South African Palaeocave Survey: A Regional GIS approach in palaeoanthropology. African Archaeological Research Days, University of Southampton, UK, 11-3-12. [Podium]
- Lewton** KL. 2012. The effect of biacetabular breadth on metabolic cost of human walking and running. *American Journal of Physical Anthropology* 147(S54):193. [Podium]
- Lewton** KL. 2011. Modularity and morphological integration of the primate ilium and ischiopubis. Division of Vertebrate Morphology, Society for Comparative and Integrative Biology, New England Regional Meeting, 11-5-11. [Podium]
- Lewton** KL. 2011. Iliac and ischiopubic modularity: implications for the evolution of the hominin pelvis. Paleoanthropology Society, Minneapolis, 4-12-11. [Poster]
- Lewton** KL. 2010. Patterns of in vitro strain in the primate pelvis. Division of Vertebrate Morphology, Society for Comparative and Integrative Biology, New England Regional Meeting, 10-16-10. [Podium]
- Lewton** KL. 2010. Pelvic biomechanics and locomotor adaptation within the Order Primates. *American Journal of Physical Anthropology* 141(S50):154-155. [Podium]
- Ritzman TB, Copes LE, **Lewton** KL. 2010. Correlation between measures of the lateral and midline basicranium: Implications for understanding facial positioning in anthropoid primates. *American Journal of Physical Anthropology* 141(S50):198. [Poster]
- Lewton** KL. 2010. Patterns of strain in the primate pelvis: implications for theoretical models of pelvic biomechanics. *The FASEB Journal* 24(1):449.11. [Poster]

- Ritzman TB, Copes LE, **Lewton** KL. 2009. A comparison of midline and lateral measures of the middle cranial fossa in hominoid primates. *The FASEB Journal* 23(1):648.2. [Poster]
- Lewton** KL, Spencer MA, Crawford NR. 2008. In vitro bone strain in a macaque pelvis during hindlimb loading. *American Journal of Physical Anthropology* 135(S46):140. [Podium]
- Lewton** KL and Spencer MA. 2007. Scaling patterns and the functional morphology of primate pelvis shape. *American Journal of Physical Anthropology* 132(S44):155. [Poster]
- Lewton** KL. 2005. Epigenetic differences in articular surface area in captive and wild chimpanzees (*Pan troglodytes*). *American Journal of Physical Anthropology* 126(S40):138. [Poster]
- Lewton** KL, Landis EK, Gayheart TA, and Jacofsky MC. 2004. Functional differentiation of the caudal and clavicular heads of the pectoralis major muscle in *Homo sapiens*. *American Journal of Physical Anthropology* 123(S38):135. [Poster]
- Lewton** K, Eck GG, and Kramer PA. 2003. Quantitative analysis of femoral neck shape and loading environment in robust australopithecines. *American Journal of Physical Anthropology* 120(S36):139. [Poster]

ORGANIZED CONFERENCES

- 2024 American Association of Biological Anthropologists, Los Angeles, California (1,441 attendees)
- 2023 American Association of Biological Anthropologists, Reno, Nevada (1,365 attendees)

ORGANIZED SYMPOSIA

- 2014 "From the Ground Up: Integrative Research in Primate Locomotion," American Association of Physical Anthropologists, Calgary, 4-11-14.

INVITED PRESENTATIONS - NATIONAL

- 2023 "Locomotor and body size influences on hindlimb bone cross-sectional properties in leaping primates," Duke University, 10-27-2023
- 2020 "Comparative pelvic anatomy reveals adaptations to human bipedalism and birth," University of Tennessee, Knoxville, 4-8-2020
- 2019 "Functional morphology," California State University Long Beach, 10-21-19
- "Birth, bipedalism, and the evolution of the human hip," Center for Behavior, Evolution, and Culture, University of California Los Angeles, 9-30-19
- "Limb bone adaptations to locomotor mechanics in primates," Department of Biological Sciences, California Polytechnic State University, San Luis Obispo, 4-26-19

- “Tarsal bone strength properties of leaping primates,” Molecular Imaging Center, Department of Radiology, University of Southern California, 4-11-19
- 2016 “Evolution of bipedality and the human hip,” Department of Anthropology, University of Nevada Las Vegas, 3-14-16
- “Adaptation, modularity, and the evolution of the primate pelvis,” Department of Biology, University of California Riverside, 1-28-16
- 2015 “Evolutionary flexibility and loading adaptation of the ilium,” Department of Anthropology, Pennsylvania State University, 10-23-15
- “Pelvic functional morphology and the evolution of the human hip” Department of Anthropology, Boston University, 03-19-15
- “Difficult birth in modern humans: insights from biomechanics and human evolution,” Department of Obstetrics and Gynecology Grand Rounds, Boston Medical Center, 03-04-15
- “What can our hip bones tell us about the evolution of bipedality?” Rhode Island College, Department of Biology, 02-26-15
- “How does the pelvis respond to loading?” Shefelbine Bone Biomechanics Lab, Department of Mechanical and Industrial Engineering, Northeastern University, 02-25-15
- 2014 “Integrative approaches in paleoanthropology: biomechanics, comparative morphology, and GIS,” Boston University Department of Archaeology, 12-10-14
- “Locomotion, childbirth, and the evolution of the human hip,” Virginia Commonwealth University, 10-24-14
- “Primate locomotion, pelvic adaptation, and the evolution of human bipedalism,” University of Southern California, Program in Human and Evolutionary Biology, Symposium on Evolutionary Biomechanics, 4-22-14
- “Primate locomotion, pelvic adaptation, and the evolution of human bipedalism,” Rutgers University Evolutionary Anthropology, 4-18-14

INVITED PRESENTATIONS – INTERNATIONAL

- 2023 “Comparative analyses of the pelvis of *Homo floresiensis*,” Max Planck Institute for Evolutionary Anthropology, 10-10-2023
- 2016 “Adaptations to locomotion in the primate pelvis: implications for human evolution,” Human Evolution Research Institute, University of Cape Town, South Africa, 8-2-2016

INVITED PANELS

- 2016 Panelist, Committee on Diversity Women’s Initiative, Graduate Student Women’s Professional Development Workshop, American Association of Physical Anthropologists, Atlanta, GA, 4-13-16
- 2014 Panelist, “Now What? How to Get Employment After Graduate School,” American Anthropological Association conference, Washington, DC

2012 Panelist, Anatomy Career Workshop at American Association of Physical Anthropologists, sponsored by the American Anatomical Association and organized by J. Rutherford and A. Doubleday

FELLOWSHIPS, HONORS, & AWARDS

2023 Fellow, The Linnean Society

2021 Year 2 Faculty Teaching Award, Keck School of Medicine, USC

2016 American Association of Anatomists Short-Term Visiting Scholarship

2016 Year 1 Faculty Teaching Award, Keck School of Medicine, USC

2013 American Association of Anatomists travel award

2013 Finalist for postdoctoral platform presentation prize, American Association of Anatomists

2013 Certificate of Teaching Excellence, Harvard University

2011 Paleoanthropology Society Travel Grant

2010 Mildred Trotter Prize, Best Oral Presentation, American Association of Physical Anthropologists

2010 Finalist for student poster presentation prize, American Association of Anatomists

2010 American Association of Anatomists travel award

2010 William S. Pollitzer travel award, American Association of Physical Anthropologists

2008-2010 Dean's Advanced Scholarship, Arizona State University

2008 Donald H. Morris Award for Outstanding Doctoral Student in Physical Anthropology, School of Human Evolution and Social Change, ASU

2002-2006 National Science Foundation IGERT Fellowship in Neural and Musculoskeletal Adaptations in Form and Function

FIELD EXPERIENCE

2024 Ledi Geraru Research Project, Afar Regional State, Ethiopia, PIs: Ramon Arrowsmith, Chris Campisano, Amy Rector, Kaye Reed, Brian Villmoare

2012 South African Palaeocave Survey, South Africa, PI: Kevin Kuykendall

2009 Beza Mahafaly Special Reserve, Madagascar

2005 Awash-Mille Survey Project, Institute of Human Origins, Afar Regional State, Ethiopia, PIs: Charles Lockwood and Kaye Reed

2005 Archaeologist, Las Canopas field site, Rio Salado Archaeology, LLC

2003 Archaeological excavation crew member, Los Cremaciones, Office of Cultural Resource Management, Phoenix, Arizona

2001 Makapansgat Field School, South Africa, Institute of Human Origins and University of Witwatersrand

MUSEUM EXPERIENCE

National

American Museum of Natural History (NY)
Arizona State University (AZ)
Cleveland Museum of Natural History (OH)
Field Museum (IL)
Natural History Museum of Los Angeles (CA)
Museum of Comparative Zoology (MA)
Smithsonian Institution National Museum of Natural History (DC)

International

Beza Mahafaly Osteological Collection (Madagascar)
Ditsong National Museum of Natural History (Pretoria, South Africa)
Muséum national d'Histoire naturelle (Paris, France)
National Museum of Ethiopia (Addis Ababa, Ethiopia)
National Museum of Scotland (Edinburgh, Scotland)
Natural History Museum (London, UK)
Powell-Cotton Museum (Birchington, UK)
University of the Witwatersrand Evolutionary Studies Institute (Johannesburg, South Africa)

PROFESSIONAL TRAINING & WORKSHOPS

2024 Functional Programming in R workshop, Transmitting Science, May 27-30, 2024

2019 AAPA COD-WIN Mentoring the Mentor workshop, March 27, 2019

2015 AAPA COD-WIN Early Career workshop, March 25, 2015

2013 Geometric morphometrics and phylogeny workshop, Transmitting Science, Barcelona, Spain, September 2-7.

2011 Harvard University Science Faculty Workshop

2010 3D XMA Dynamics Short Course, University of Nevada Las Vegas, Laboratory of Comparative Biomechanics

2005-2009 Research Assistant, Primate Anatomy Laboratory, Arizona State University

2004 Research Assistant, Primate Foundation of Arizona, Mesa, Arizona

2002-2006 NSF IGERT: Neural and Musculoskeletal Adaptations in Form and Function

TEACHING EXPERIENCE

Keck School of Medicine of University of Southern California
Brain, Behavior, Movement II (Course/Module Director, 2024-present)

M.S. Teaching in the Anatomical Sciences (guest lecturer 2021- 2024)
M.S. Integrative Anatomical Sciences Seminar (Course Director, Summer 2021-present)
M.S. Advanced Regional Anatomy (guest lecturer, 2020-present)
M.S. Human Osteology (guest lecturer, Fall 2018)
M.S. Human Anatomy (Course Director and Curriculum Development, Summer 2018; Guest lecturer Summer 2019; lab instructor Summer 2020)
Pearls of the Board Review: Gross Anatomy, Internal Medicine Student Interest Group (guest lecture, 3-31-18)
Medical Gross Human Anatomy (2015-present)

Boston University School of Medicine

Physician Assistant Gross Anatomy (Course Director, Summer 2014 & 2015)
Medical Gross Anatomy (Fall 2014)

Harvard University

Human Origins and Evolution (co-instructor, Spring 2013)
Hominid Paleontology and Evolution (co-instructor, Fall 2012)
Human Evolution and the Human Body (Preceptor & Teaching Fellow, Spring 2011, 2012)
Research in Comparative Biomechanics: Seminar (Undergraduate independent research supervisor, Spring 2011 & 2012)
Human Evolution and the Human Body, Evolution and Adaptation of the Human Diet, Hominid Paleontology and Evolution, Human Origins and Evolution (Curriculum development, 2010-2013)

Arizona State University

Forensic Anthropology (Associate Instructor, Spring 2010)
Bones, Stones, and Human Evolution (Associate Instructor, Spring 2009)
Human Anatomy & Physiology (Associate Instructor, 2006-2008)

University of Arizona College of Medicine - Phoenix

Clinical Anatomy (medical human gross anatomy, Associate Instructor, Fall 2007, 2008)

TRAINEE ADVISING & MENTORING

Graduate Students

Master's Thesis Chair

Stephanie Costa (MA, 2015)

BU School of Medicine, Anatomy

Master's Thesis Committee Member

Amanda Costello (MA, 2015) BU School of Medicine, Forensic Anthropology

Master's Research Advisor

Kyle Schtul (MS, 2022) Integrative Anatomical Sciences, USC
William Byrd (MS, 2019) Integrative Anatomical Sciences, USC

PhD Dissertation Committee Member

Katie Sayre (PhD, 2023) Biological Sciences, USC
Marie Vergamini Integrative Life Sciences, Virginia Commonwealth University
Jordan Cannon (PhD, 2022) Biokinesiology & Physical Therapy, USC
Jia Liu (PhD, 2020) Biokinesiology & Physical Therapy, USC

PhD Qualifications Committee Member

Mary Pena (PhD Student) Integrative Anatomical Sciences, USC
Katie Sayre (PhD, 2023) Biological Sciences, USC

Research Advisor: Postbaccalaureate

Megan P. Solís (2021-2022) UCSD, Biological Anthropology

Research Advisor: Undergraduate Students

Royce Smith (2024-present) USC, Neuroscience
Julia Haffie (2023-present) USC, Biology
Kaitlin Hsu (2021-2023) USC, Biology
Chloe Knitt (2021-2024) USC, Biology
Emily-Elizabeth Cardenas (2020-2021) USC, Biochemistry
Daniela Cruz (2019-2020) USC, Biology
Jocelyn Morales (2018-2020) USC, Biology
Ryan Brankovic (2017-2018) USC, Physics & Biology
Erandy de la Peña (2016) American Jewish University/USC
R. William Horace (2015) Boston University
Ayse Baybars (2011-2012) Harvard University
Jaren LaGreca (2011-2012) Harvard University

Research Advisor: High School Students

Serin Shin (2019) North Hollywood High School

Student Organizations

2016-present Faculty Adviser, MedLambda (LGBTQIA+ student organization),
Keck School of Medicine

SERVICE & LEADERSHIP

Professional service

- 2024-present Secretary, American Association of Biological Anthropologists
- 2024-present Chair, Website and Electronic Resources Ad Hoc Committee, American Association of Biological Anthropologists
- 2022-2024 Vice President and Program Chair, American Association of Biological Anthropologists
- 2023-2024 Local Arrangements Committee, American Association of Biological Anthropologists, 93rd Annual Conference, Los Angeles, 2024
- 2019-2020 Co-Chair, Local Arrangements Committee, American Association of Physical Anthropologists 89th Annual Conference, Los Angeles, 2020
- 2019-2022 Executive Committee, Membership Chair, American Association of Physical Anthropologists
- 2018-2019 Grant Awards Task Force, American Association for Anatomy
- 2018-2020 Scientific Program Committee, American Association of Physical Anthropologists
- 2018-2022 Steering Committee Member, American Association of Physical Anthropologists, Committee on Diversity: LGBTQQIAA
- 2018-2022 Steering Committee Member, American Association of Physical Anthropologists, Committee on Diversity: Women's Initiative (COD-WIN)
- 2014-2015 Co-organizer, Mid-Atlantic Bioanthropology Interest Group
- 2013-2017 Scientific Program Committee, American Association of Physical Anthropologists
- 2012-2013 Ad Hoc New Media Committee, American Association of Physical Anthropologists
- 2012-2013 Co-organizer, Physical Anthropology Women's Mentoring Network annual event
- 2011-2016 Student Awards Committee, American Association of Physical Anthropologists
- 2010-2017 Steering Committee, Physical Anthropology Women's Mentoring Network
- 2004-2009 Grant reviewer, Graduate and Professional Student Association, ASU

Editorial boards:

- 2017-2022 Associate Editor, *Journal of Human Evolution*

Manuscript *ad hoc* reviewer:

American Journal of Biological Anthropology; Anatomical Record; Computer Methods in Biomechanics and Biomedical Engineering; Evolution, Medicine, and Public Health; International Journal of

Primateology; Journal of Anatomy; Journal of Human Evolution; Journal of Mammalogy; Nature Communications; PeerJ; Zoology

Grant proposal reviewer:

Ad hoc:

National Geographic Society (2022-2023), National Science Foundation (Biological Anthropology Senior Research, 2013, 2020), The Leakey Foundation (2014-present), Swiss National Science Foundation (2016-2017, 2021)

Panelist, National Science Foundation (3 panels)

Textbook reviewer:

Lippincott Williams & Wilkins, Anatomy texts (2014); Open SUNY textbooks (2015)

Departmental service

2022-present	Member, Department of Integrative Anatomical Sciences PhD Program Admissions Committee
2022-2023	Chair, Department of Integrative Anatomical Sciences Postdoctoral Teaching Scholar Search Committee, USC
2022	Member, Department of Integrative Anatomical Sciences Gross Anatomy Faculty Search Committee, USC
2021	Chair, Department of Integrative Anatomical Sciences Postdoctoral Teaching Scholar Search Committee, USC
2021	Member, Annual Merit Review Committee, Department of Integrative Anatomical Sciences, USC
2020-present	Program Director, Master of Science in Integrative Anatomical Sciences, USC
2019-2020	Chair, Department of Integrative Anatomical Sciences Gross Anatomy Faculty Search Committee, USC
2019	Chair, Department of Integrative Anatomical Sciences Postdoctoral Teaching Scholar Search Committee, USC
2018-2019	Member, Department of Integrative Anatomical Sciences Neuroanatomy Faculty Search Committee, USC
2017-2018	Member, Annual Merit Review Committee, Department of Integrative Anatomical Sciences, USC
2017-2019	Chair, Social Media Outreach, Department of Integrative Anatomical Sciences, USC
2017-present	Chair, Social Media Outreach, Master's Program, Department of Integrative Anatomical Sciences, USC

- 2017-2018 Member, Department of Integrative Anatomical Sciences Gross Anatomy Laboratory Renovation Committee, USC
- 2017-present Member, Department of Integrative Anatomical Sciences Master's Program Admissions Committee
- 2015-2017 Member, Department of Cell and Neurobiology Master's Program Development Committee, USC
- 2015-2016 Member, Department of Cell and Neurobiology Gross Anatomy Faculty Search Committee, USC
- 2015-2016 Member, Department of Cell and Neurobiology Microanatomy Faculty Search Committee, USC
- 2010-2013 Committee member, undergraduate honors theses, Harvard University
- 2006-2007 President, Association of Anthropology Graduate Students, Arizona State Univ.
- 2004-2005 Treasurer, Association of Anthropology Graduate Students, Arizona State Univ.
- 2003-2004 Graduate student representative, Physical Anthropology subdiscipline, Arizona State Univ.

School service

- 2024-present Member, Faculty Appointments, Promotion and Tenure Committee, KSOM, USC
- 2024-2027 Member, Faculty Council, KSOM, USC
- 2024-present Member, LCME Accreditation Educational Program Subcommittee, KSOM, USC
- 2024-present Course Director, Brain, Behavior, Movement II, KSOM, USC
- 2024-present Member, Pre-Clinical Curriculum Committee, KSOM, USC
- 2023-present Member, Educational Program Objective Review Task Force, KSOM, USC
- 2023-2024 Member, Selection committee for Dean's Awards for Excellence, KSOM, USC
- 2022-present Member, Medical Education Curriculum Committee, KSOM, USC
- 2022 Faculty judge, Medical Student Research Forum, KSOM, USC
- 2019-2022 Member, Brain, Behavior, and Movement Working Group for the Keck School of Medicine Curriculum Renewal
- 2017 Member, LCME Accreditation Junior Faculty Group, Keck School of Medicine
- 2015 Member, Self-Study Standards for Accreditation Committee, Physician Assistant Program, Boston University

- 2014-2015 Member, Educational Policy and Curriculum Committee, Physician Assistant Program, Boston University
- 2014-2015 Member, Physician Assistant Program Admissions Committee, Boston University

University service

- 2022 Participant, Division of Biokinesiology & Physical Therapy PhD Program Academic Program Review, USC
- 2017-2019 Chair, Social Media Outreach, Paleosciences Research Consortium, USC
- 2017-2020 Member, Paleosciences Research Consortium Planning Committee, USC
- 2007 Committee chairperson, Graduates in the Earth, Life, and Social Sciences Symposium, Arizona State Univ.
- 2004-2006 Committee member, Graduates in the Earth, Life, and Social Sciences Symposium, Arizona State Univ.

Public Service & Outreach

- 2023-2024 STEM Professional, Letters to a Pre-Scientist
- 2022 Guest lecture, "Ancient Human Discovery," Exploring By The Seat Of Your Pants <https://youtu.be/3q64fhWpGt8>
- 2022 Panelist, March Mammal Madness Festival with Exploring By The Seat Of Your Pants
- 2021, 2023 DinoFest, Natural History Museum of LA County
- 2021-2022 March Mammal Madness Narrator, 2014-2016 & 2021-2022
- 2019-2020 STEM Professional, Letters to a Pre-Scientist
- 2018 Invited speaker, Campbell Hall, Studio City, CA
- 2018 Guest expert, "Brains On!" Kids science podcast produced by American Public Media <https://www.brainson.org/shows/2016/10/25/body-bonanza-yawns-hiccups-goosebumps-and-more>
- 2016, 2017 Guest lecture, Camp Cardiac at Keck School of Medicine
- 2014-2016 Co-Organizer & Narrator, Mammal March Madness
- 2012 Invited speaker, Xaverian Brothers High School, Westwood, MA
- 2011 Invited blog post, anthropologiesproject.org: "Biological anthropology: providing the historical context for all your anthropological questions."
- 2007 Project Medical Education Volunteer, Phoenix, AZ

2006 K-12 educator, Institute of Human Origins, Tempe, AZ
2005 Sigma Xi Judge, Intel International Science and Engineering Fair,
Phoenix, AZ

SELECTED MEDIA COVERAGE

The developmental impacts of natural selection on human pelvic morphology

"Why do humans walk upright? The secret is in our pelvis," September 12, 2022

***Sivapithecus* fossil innominate**

"Fossil raises puzzling questions about how upright body plan of great apes evolved,"
February 4, 2015

A wider pelvis does not increase locomotor cost in humans

"In defense of wide hips," BU Research, April 14, 2015

"Hip correction," Harvard Gazette, March 23, 2015

March Mammal Madness

"March Mammal Madness, an entertaining and educational 'tourney' about wildlife instead of sports teams," Washington Post, February 27, 2021

"'March Mammal Madness' Brings Simulated Animal Fights to Huge Audiences,"
Scientific American, February 22, 2021

"Mammals face off in Twitter battles for supremacy," Nature News, March 23, 2016

"Have a Weasel in Your Bracket? Fans Go Mad for Mammals," Wall Street Journal,
March 7, 2016

"Mammal March Madness: Imaginary death matches in the animal kingdom," Boston
Globe, March 18, 2015

"Mammal March Madness is beloved animal version of NCAA championship," Chicago
Tribune, March 8, 2015

"Mammal March Madness: Fill Out Your Bracket," Discovery News, March 7, 2015

"Could a quokka beat a numbat? Oddsmakers say yes," NPR, March 6, 2015

PROFESSIONAL MEMBERSHIP

Current

American Association for the Advancement of Science
American Association for Anatomy
American Association of Biological Anthropologists
International Society for Vertebrate Morphology
Fellow of The Linnean Society

Past

American Society of Mammalogists
Paleoanthropology Society
Society of Integrative and Comparative Biology
Society of Vertebrate Paleontology