

CURRICULUM VITAE

Elizabeth Mallott, PhD

DATE: 08-21-2023

ADDRESS AND TELEPHONE NUMBERS:

Office:

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1 Brookings Dr, CB 1137
St. Louis, MO 63130
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PRESENT POSITION:

2022-Present Assistant Professor, Department of Biology, Washington University in St. Louis

EDUCATION:

2010-2016 PhD; Biological Anthropology; University of Illinois at Urbana-Champaign, Urbana, IL

2002-2006 BA; Biology (with honors) and Music (with honors); Grinnell College, Grinnell, IA

ACADEMIC POSITIONS / EMPLOYMENT:

2020-2022 Postdoctoral Fellow; Bordenstein Lab, Department of Biological Sciences and Vanderbilt Microbiome Innovation Center; Vanderbilt University, Nashville, TN

2019-2020 Visiting Lecturer; Department of Anthropology; Dartmouth College, Hanover, NH

2016-2019 Postdoctoral Fellow; Amato Lab, Department of Anthropology; Northwestern University, Evanston, IL

TEACHING TITLE & RESPONSIBILITIES:

2023-Present Professor in Microbiology, Department of Biology, Washington University, St. Louis, MO
 BIOL 349: Fundamentals of Microbiology, co-instructor, 101 students
 BIOL 3171: Biology for Climate Change Solutions, co-instructor, 20 students

2022-Present Qualifying Exam Committees (Student, Program):
 Kyra Raines, MMMP
 Brian Gallagher, PMB

2022-Present Undergraduate Research Mentoring
 Shan Wang
 Kaylaa Betts
 Jennifer Ong

BIOLOGY DEPARTMENT COMMITTEES

2022-Present Curriculum Committee

2023-Present Biology Faculty Excellence Task Force

SCIENTIFIC REVIEW AND SERVICE

2020-Present *Ad-hoc reviewer:* National Science Foundation, The Leakey Foundation, FWF Austrian Science Fund, Israeli Science Foundation

EDITORIAL RESPONSIBILITIES:

2015-Present *Reviewer:* American Journal of Physical Anthropology, American Journal of Primatology, Animal Behaviour, Animal Microbiome, Current Zoology, eLife, Environmental Microbiology, International Journal of Primatology, Molecular Ecology, mSystems, Nature Communications, PeerJ, PLoS One, Proceedings of the Royal Society B, Wildlife Research

SCIENTIFIC OUTREACH

2018-2019 NU Morning Mentors Program, Evanston, IL.
2017-2018 Judge, Poster Presentation Competition, Computational Research Day, Northwestern University.
2017 STEM Professional, Project Exploration Sisters4Science program, Chicago, IL.
2017 Volunteer, Expanding Your Horizons Workshop, Chicago, IL.
2011-2016 Environmental education volunteer, Champaign County Forest Preserve District.
2014-2016 Volunteer, Fruit Forensics program, Champaign Public Library.

PROFESSIONAL SOCIETIES AND ORGANIZATIONS

2023-Present American Society for Microbiology
2019-Present International Society for Evolutionary Medicine and Public Health
2018-Present International Primatological Society
2013-Present American Association of Anthropological Genetics
2010-Present American Association of Biological Anthropologists
2007-Present American Society of Primatologists

HONORS AND AWARDS:

2016 American Association of Anthropological Genetics' Outstanding Trainee Presentations in Anthropological Genetics Poster Prize at the AAPA annual meeting
2016 Demetri B. Shimkin Award for a superior paper in anthropology, Department of Anthropology, University of Illinois at Urbana-Champaign
2012 George A. Beslow Award in Anthropology and Sociology, Department of Anthropology, University of Illinois at Urbana-Champaign

INVITED SEMINARS & LECTURESHIPS:

2023 Department of Anthropology, University of Pennsylvania
2023 Center for Reproductive Health Sciences, Washington University in St. Louis
2022 Digestive Disease Research Core Center seminar, Washington University in St. Louis
2022 Wild Animal Microbiome Evolution Strategic Network seminar, European Society of Evolutionary Biology
2022 Living Earth Collaborative seminar, Washington University in St. Louis
2022 mDivE-STL: microbiomes of diverse ecosystems keynote speaker
2022 European Congress of Clinical Microbiology and Infectious Disease annual meeting, *Pathogen competition and co-evolution in the microbiome* symposium, Lisbon, Portugal
2022 Department of Anthropology, University of California Santa Barbara

2022	Microbiome Centers Consortium Seminar Series
2022	Department of Biology, Washington University in St. Louis
2022	Department of Anthropology, University of North Carolina Chapel Hill
2022	Department of Anthropology, Tulane University
2021	Department of Biology, American University
2021	Department of Biology, University of North Carolina Chapel Hill
2020	Department of Anthropology, University of Minnesota
2020	Department of Anthropology, Boston University
2019	Program in Bioinformatics, Loyola University Chicago
2019	International Society for Evolution, Medicine, and Public Health annual meeting, <i>Microbiome and neurologic disease risk</i> symposium, Zurich, Switzerland
2019	Department of Anthropology, Kent State University
2018	Department of Archaeology, University of Cambridge
2018	Evolutionary Medicine Society, Loyola Stritch Medical School
2018	Department of Biology, University of Nebraska Omaha
2017	Department of Anthropology, University of North Carolina at Charlotte
2015	American Association of Physical Anthropology annual meeting, <i>Thinking Anthropologically about Genetics</i> symposium, St. Louis, MO
2014	Applied Genomics in Anthropological Research Workshop, San Antonio, TX

RESEARCH SUPPORT (\$38,598):

ACTIVE

a. Non-Governmental

TRIADS Seed Grant

04/07/2023-04/06/2024

WUSTL

\$90,827; \$38,598

TITLE: Legacy of Neglect: Linking flood hazards, pathogen exposure, and health inequities in Cahokia Heights, IL

Role: Lead Co-PI

BIBLIOGRAPHY (* = equal contribution; ** = corresponding author #= WUSTL undergraduate):

Primary Research Papers (Available on PubMed)

1. **EK Mallott****, AR Sitarik, LD Leve, C Cioffi, CA Camargo Jr, K Hasegawa, SR Bordenstein. 2023. Human gut microbiome variation associated with race and ethnicity emerges as early as 3 months of age. *PLoS Biology* 21: e3002230. DOI: 10.1371/journal.pbio.3002230. PMID: 37590208.
2. O Chioma, **EK Mallott**, B Shah-Gandhi, Z Wiggins, M Langford, A Lancaster, A Gelbard, H Wu, JE Johnson, WR Mason, L Lancaster, EM Wilfong, LJ Crofford, CG Montgomery, L Van Kaer, SR Bordenstein, DC Newcomb, WP Drake. 2023. Low gut microbial diversity augments estrogen-mediated pulmonary fibrosis in female-predominant interstitial lung disease. *Cells* 12: 766. DOI: 10.3390/cells12050766. PMID: 36899902.
3. TJ Cepon-Robins, **EK Mallott**, IC Recca, TE Gildner. Evidence and effects of neglected parasitic infections among a small preliminary sample of children from rural Mississippi. 2023. *American Journal of Human Biology*. DOI: 10.1002/ajhb.23889. PMID: 36861998.
4. O Chioma, **EK Mallott**, L Hesse, A Chapman, JC Van Amburg, H Wu, B Shah-Gandhi, N Dey, M Kirkland, M Byndloss, MB Piazuelo, J Johnson, GR Bernard, SR Bodduluri, S Davison, H Bodduluri, SR Bordenstein, W Drake. 2022. Gut microbiota modulates lung fibrosis severity following acute

lung injury in mice. *Communications Biology* 5: 1401. DOI: 10.1038/s42003-022-04357-x. PMID: 36543914.

5. J Li*, RHG Markowitz*, AW Brooks*, **EK Mallott***, BA Leigh, T Olszewski, H Zare, M Bagheri, HM Smith, KA Friese, I Habibi, WM Lawrence, CL Rost, A Lédeczi, AM Eeds, JF Ferguson, HJ Silver, SR Bordenstein. Individuality and ethnicity eclipse a short-term dietary intervention in shaping microbiomes and viromes. 2022. *PLoS Biology* 20: e3001758. DOI: 10.1371/journal.pbio.3001758. PMID: 35998206.
6. **EK Mallott**, LH Skovmand, PA Garber, KR Amato. The faecal metabolome of black howler monkeys (*Alouatta pigra*) varies in response to seasonal dietary changes. 2022. *Molecular Ecology* 31: 4146-4161. DOI: 10.1111/mec.16559. PMID: 35665560.
7. AL Severson, BF Byrd, **EK Mallott**, AC Owings, M DeGiorgio, A de Flamingh, C Nijmeh, M Arellano, A Leventhal, N Rosenberg, RS Malhi. Ancient and modern genomics of the Ohlone Indigenous population of California. 2022. *Proceedings of the National Academy of Sciences* 119: e2111533119. DOI: 10.1073/pnas.2111533119. PMID: 35312358.
8. **EK Mallott**, KR Amato. Butyrate-producing pathways abundances are similar in human and nonhuman primate gut microbiomes. 2022. *Molecular Biology and Evolution* 39: msab279. DOI: 10.1093/molbev/msab279. PMID: 34542625.
9. R Martínez-Mota, N Righini, **EK Mallott**, T Gillespie, KR Amato. The relationship between pinworm (*Trypanoxyuris*) infection and gut bacteria in wild black howler monkeys (*Alouatta pigra*). 2021. *American Journal of Primatology* 83: e23330. DOI: 10.1002/ajp.23330. PMID: 34529285.
10. KR Amato, OM Chaves, **EK Mallott**, TM Eppley, F Abreu, AL Baden, AA Barnett, JC Bicca-Marques, SA Boyle, CA Chapman, K Galisteo Diemer Lopes, P Fan, P Fashing, A Felton, IP Fontes, B Fruth, MF Castellon de la Fuente, V Fortes, CC Grueter, G Hohmann, M Irwin, J Matthews, A Mekonnen, A Melin, J Ostner, N Nguyen, A Piel, B Pinacho-Guendulain, EP Quintino Aredes, PT Razanaparany, JM Rothman, N Schiel, O Schuelke, S Shanee, A Souto, JP Souza-Alves, S Tecot, F Stewart, A Stone, B Sun, K Valenta, E Vogel, S Wich, Y Zeng. 2021. Fermented food consumption in wild non-human primates and its ecological drivers. *American Journal of Physical Anthropology* 175: 513-530. DOI: 10.1002/ajpa.24257. PMID: 33650680.
11. S Kuthyar, MM Kowalewski, DM Roellig, **EK Mallott**, Y Zeng, TR Gillespie, KR Amato. Effects of anthropogenic habitat disturbance and *Giardia duodenalis* infection on a sentinel species' gut bacteria. 2021. *Ecology and Evolution* 11: 45-57. DOI: 10.1002/ece3.6910. PMID: 33437414.
12. **EK Mallott**, C Borries, A Koenig, KR Amato, A Lu. Reproductive hormones mediate changes in the gut microbiome during pregnancy and lactation in Phayre's leaf monkeys. 2020. *Scientific Reports* 10: 9961. DOI: 10.1038/s41598-020-66865-2. PMID: 32561791.
13. **EK Mallott**, RS Malhi, KR Amato. Assessing the comparability of different DNA extraction and amplification methods in gut microbial community profiling. 2019. *Access Microbiology* 1. DOI: 10.1099/acmi.0.000060. PMID: 32974545.
14. JS Frankel, **EK Mallott**, LM Hopper, SR Ross, KR Amato. The effect of captivity on the primate gut microbiome varies with host dietary niche. 2019. *American Journal of Primatology* 81: e23061. DOI: 10.1002/ajp.23061. PMID: 31713260.
15. KR Amato, **EK Mallott**, JE Lambert, D McDonald, A Gomez, JL Metcalf, NJ Dominy, GAO Britton, RM Stumpf, T Goldberg, SR Leigh, R Knight. Convergence of human and Old World monkey gut microbiomes demonstrates the importance of human ecology over phylogeny. 2019. *Genome Biology* 20: 201. DOI: 10.1186/s13059-019-1807-z. PMID: 31590679.
16. A Gomez, A Sharma, **EK Mallott**, K Petrzelkova, CJ Robinson, C Yeoman, F Carbonero, B Pafco, J Rothman, A Ulanov, K Vlckova, KR Amato, S Schnorr, NJ Dominy, D Modry, A Todd, M Torralba, K Nelson, M Burns, R Blekman, M Remis, RM Stumpf, B Wilson, H Gaskins, PA Garber, B White,

- SR Leigh. Plasticity in the human gut microbiome defies evolutionary constraints. 2019. mSphere 4: e00271-19. DOI: 10.1128/mSphere.00271-19. PMID: 31366708.
17. PA Garber, **EK Mallott**, LM Porter, A Gomez. The gut microbiome and metabolome of saddleback tamarins (*Leontocebus weddelli*): Insights into the foraging ecology of small-bodied primates. 2019. American Journal of Primatology 81: e23003. DOI: 10.1002/ajp.23003. PMID: 31190348.
 18. **EK Mallott**, KR Amato. The microbial reproductive ecology of white-faced capuchins (*Cebus capucinus*). 2018. American Journal of Primatology 80: e22896. DOI: 10.1002/ajp.22896. PMID: 29984842.
 19. **EK Mallott**, PA Garber, RS Malhi. trnL outperforms rbcL as a DNA metabarcoding marker when compared with the observed plant component of the diet of white-faced capuchins (*Cebus capucinus*). 2018. PLoS One 13: e0199556. DOI: 10.1371/journal.pone.0199556. PMID: 29944686.
 20. **EK Mallott**, KR Amato, PA Garber, RS Malhi. Influence of fruit and invertebrate consumption on the gut microbiota of wild white-faced capuchins (*Cebus capucinus*). 2018. American Journal of Physical Anthropology 165: 576-588. DOI: 10.1002/ajpa.23395. PMID: 29313897.
 21. J Lindo, M Rogers, **EK Mallott**, B Petzelt, J Mitchell, D Archer, RS Malhi, M DeGiorgio. Patterns of genetic coding variation in a Native American population before and after European contact. 2018. American Journal of Human Genetics 102: 806-815. DOI: 10.1016/j.ajhg.2018.03.008. PMID: 29706345.
 22. A de Flamingh, **EK Mallott**, AL Roca, A Boraas, RS Malhi. Species identification and mitochondrial genomes of ancient fish bones from the Riverine Kachemak tradition of the Kenai Peninsula, Alaska. 2018. Mitochondrial DNA Part B 3: 409-411. DOI: 10.1080/23802359.2018.1456371. PMID: 33474186.
 23. JE Molto, O Loreille, **EK Mallott**, RS Malhi, S Fast, J Daniels-Higginbotham, C Marshall, R Parr. Complete mitochondrial genome sequencing of a burial from a Romano-Christian cemetery in the Dakhleh Oasis, Egypt. 2017. Genes 8: 262. DOI: 10.3390/genes8100262. PMID: 28984839.
 24. **EK Mallott**, PA Garber, RS Malhi. Integrating feeding behavior, ecological data, and DNA barcoding to identify developmental differences in invertebrate foraging strategies in white-faced capuchins (*Cebus capucinus*). 2017. American Journal of Physical Anthropology 162: 241-254. DOI: 10.1002/ajpa.23113. PMID: 27704526.
 25. **EK Mallott**, PA Garber, RS Malhi. High-throughput sequencing of fecal DNA to identify insects consumed by wild Weddell's saddleback tamarins (*Saguinus weddelli*, Cebidae, Primates) in Bolivia. 2015. American Journal of Physical Anthropology 156: 474-481. DOI: 10.1002/ajpa.22654. PMID: 25369770.

Invited Reviews and Commentary (Available on PubMed)

1. **EK Mallott**. Disentangling the mechanisms underlying phyllosymbiosis in mammals. 2023. Molecular Ecology. DOI: 10.1111/mec.17193.
2. **EK Mallott**. Individualized composition or community dynamics? A new statistical approach to assess the individuality of host-associated microbiomes. 2022. Proceedings of the Royal Society B 289: 20221794. DOI: 10.1098/rspb.2022.1794. PMID: 36350214.
3. **EK Mallott**, KR Amato. Host specificity of the gut microbiome. 2022. Nature Reviews Microbiology 19: 639-653. DOI: 10.1038/s41579-021-00562-3. PMID: 34045709.
4. **EK Mallott**, KR Amato. Phyllosymbiosis, diet, and gut microbiome associated metabolic disease. 2020. Evolution, Medicine, and Public Health 2020: 100-101. DOI: 10.1093/emph/eoaa019. PMID: 32983535.

Other Contributions (Not Available on PubMed)

1. P Pradhan, **EK Mallott**, W Shirola, A Lu, KR Amato. Host-gut microbiota interactions during pregnancy. In Revision. Evolution, Medicine, and Public Health.
2. T Whitney, **EK Mallott**, LO Diakiw, DM Christie, N Ting, KR Amato, SR Tecot, AL Baden. Ecological and genetic variables co-vary with social group identity to shape the gut microbiome of a pair-living primate. In Revision. American Journal of Primatology.
3. R Martínez-Mota, N Righini, **EK Mallott**, R Palme, KR Amato. Environmental stress and the primate microbiome: Glucocorticoids contribute to structure gut bacterial communities of black howler monkeys in anthropogenically disturbed forest fragments. 2022. Frontiers in Ecology and Evolution 10: 863242. DOI: 10.3389/fevo.2022.863242.
4. T Cepon-Robins, **EK Mallott**, I Recca, T Gildner. Exploring biocultural determinants of intestinal health: Do resource access and parasite exposure contribute to intestinal inflammation among a preliminary sample of children in rural Mississippi? 2022. American Journal of Biological Anthropology. DOI: 10.1002/ajpa.24574.
5. KR Amato, **EK Mallott**, P Maia, ML Savo Sardaro. Predigestion as an evolutionary impetus for human use of fermented food. 2021. Current Anthropology 62: S207-S219. DOI: 10.1086/715238.
6. G Figueiro, L Cabrera Pérez, J Lindo, **EK Mallott**, A Owings, RS Malhi, M Sans. Análisis del genoma mitocondrial de dos individuos inhumados en el sitio arqueológico CG14E01 “Isla Larga” (Rocha, Uruguay). 2017. Revista Argentina de Antropología Biológica 19: 1-17. DOI: 10.17139/raab.2017.0019.01.06.
7. **EK Mallott**. Locus. 2017. In J. Vonk & T. Shackelford (Eds.), Encyclopedia of Animal Cognition and Behavior. New York: Springer International Publishing. DOI: 10.1007/978-3-319-47829-6_182-1.
8. **EK Mallott**. Somatic Cell. 2017. In J. Vonk & T. Shackelford (Eds.), Encyclopedia of Animal Cognition and Behavior. New York: Springer International Publishing. DOI: 10.1007/978-3-319-47829-6_173-1.
9. PA Garber, A McKenney, **EK Mallott**. The ecology of trunk-to-trunk leaping in *Saguinus fuscicollis*: implications for understanding locomotor diversity in callitrichines. Neotropical Primates 12: 1-7. 2012. DOI: 10.1896/044.019.0101.