# Masako Fujita

Curriculum vitae

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#### **APPOINTMENTS**

2015-present Associate Professor, Department of Anthropology, Michigan State University
 2008-2015 Assistant Professor, Department of Anthropology, Michigan State University

## **EDUCATION**

2008 Ph.D. Anthropology, University of Washington, Seattle, Washington

Dissertation: An epidemiological and evolutionary investigation of mother-offspring vitamin A transfer. Advisor: Dr. Bettina Shell-Duncan

2005 M.A. Anthropology, University of Washington

2003 M.A. Anthropology, University of Victoria, British Columbia, Canada

Thesis: Sedentarization, seasonality, and economic differentiation: maternal diet and health in Ariaal-Rendille communities in northern Kenya. Advisor: Dr. Eric Roth

1999 B.A. Anthropology, University of Victoria, British Columbia, Canada

#### AREAS OF SPECIALIZATION

Human biology; human variation; evolutionary medicine; ecological immunology; mother-infant nutrition and health; human milk; biomarker methods; agro-pastoralism; droughts and famine; Africa

## HONORS, AWARDS, AND FELLOWSHIPS

2016	US Department of Education National Resource Center Program Course Development Grant awarded via MSU African Studies Center, \$3,000.
2010	US Department of Education Title IV Curriculum Development Grant awarded via MSU Center for Advanced Study in International Development (CASID), \$1,500.
2009	National Science Foundation (NSF) Highlight
2008-2010	Social Sciences and Humanities Research Council of Canada Postdoctoral Fellowship (awarded but declined)
2008	University of Washington (UW) Dissertation Fellowship
2007	Canadian Association for Physical Anthropology Davidson Black Award
2005	UW Chester Friz Fellowship
2002-2005	Social Sciences and Humanities Research Council of Canada Doctoral Fellowship
1999-2001	University of Victoria (UVic) Faculty of Graduate Studies Dean's Scholarship
1996-1998	UVic Entrance Scholarship; President's Scholarships
1996	North Island College (British Columbia, Canada) BC Tel Award; Dean's Honour Roll

## RESEARCH SUPPORT

Submitted	PI. Exploring human milk immune specificity. Wenner-Gren Foundation.
Submitted	Co-I. (PI Bilinda Straight) Intergenerational Effects of Extreme Climate and Environmental Modifiers in Mother-Newborn Dyads. National Institute of Health.
2023	PI. Exploring human milk immune specificity in Michigan mothers. Provost Undergraduate Research Initiative (PURI) Summer 2023 Award, \$1,500.
2023	Michigan State University (MSU) African Studies Center Core Faculty Travel Funding (in support of research dissemination in Reno, Nevada), \$1,000
2022-2023	PI. Toward understanding how polycystic ovarian syndrome and its remedies influence women's reproductive health. MSU PURI Award, \$2,000.
2020-2022	Co-PI. (PI Katherine Wander) Evolutionary Nutritional Adaptations and COVID-19 Risk among Healthcare Workers. National Science Foundation (RAPID), US\$200,000.
2019-2021	PI. Investigating associations between maternal multiple nutrient deficiencies and breast milk nutrients using samples from Ariaal women in northern Kenya. Alliance for African Partnership, African Futures Postdoctoral Leadership Program, US\$9,000.
2018-2019	PI. Breastmilk lactoferrin variation in relation to maternal anemia, micronutrient deficiency, and inflammation among Ariaal agropastoralists in northern Kenya. MSU PURI Award, US\$4,000.
2016-2018	PI. Effects of maternal nutrition and infant gender on breastmilk antibodies and micronutrients. National Science Foundation, Biological Anthropology Senior Award, US\$120,000.
2016-2017	PI. The impact of infant sex and maternal nutrition on breast milk quality in polygynous Ariaal agro-pastoralists of northern Kenya. Wenner-Gren Foundation, US\$20,000.
2016	PI. Strategic Partnership Travel Funds for research development in Kilimanjaro, Tanzania. MSU African Studies Center and Anthropology, US\$3,860.
2015-2016	PI. Exploring nutritional and immunological correlates of maternal anemia and possible impacts on breast milk quality in rural Kenya. MSU PURI Award, US\$4,000.
2015	PI. Feasibility study for iron status dried blood spot assay. MSU PURI Award, US\$1,634.
2014-2015	PI. The Impact of Coping Strategies for Food Insecurity and Health Outcomes. MSU PURI Award, US\$1,366.
2013-2014	PI. Food Insecurity, Coping Strategy, Nutrition and Immune Health among Ariaal Mothers in Kenya: An Exploratory Study. MSU PURI Award, US\$2,000.
2009-2013	PI. A Longitudinal Study of Mother-Offspring Vitamin A Transfer in Northern Kenya. MSU CSS Faculty Initiative Fund, US\$3,640.
2011	PI. Food Beliefs and Choices during Pregnancy in Northern Kenya. MSU PURI, US\$500.
2010-2011	PI. Travel Support for a Prospective Visiting Scholar, Mr. Philip Ndemwa of the Centre for Public Health Research, Kenya Medical Research Institute. MSU CASID, US\$4,000 (Awarded but declined for schedule conflict).
2010	PI. Collaborative Research Development in Para, Brazil. MSU CASID Research Initiative Travel Grant, US\$2,943.
2009	PI. A Longitudinal Study of Mother-Offspring Vitamin A Transfer in Northern Kenya. MSU CASID International Development Research Initiation Grant, US\$4,000.
2006-2008	PI (with Dr. Bettina Shell-Duncan). An Evolutionary Perspective on Mother-Offspring Vitamin A Transfer. National Science Foundation Dissertation Improvement Grant, US\$12,000.
2006-2008	PI. An Evolutionary Perspective on Mother-Offspring Vitamin A Transfer. Wenner-Gren Foundation for Anthropological Research, US\$25,000 (Grant # 7460).
2006-2007	PI. An Evolutionary Perspective on Mother-Offspring Vitamin A Transfer. Micronutrient Initiative, Can\$13,500.
2003-2005	PI. Maternal Vitamin A Status Pilot Project in Northern Kenya. Bill and Melinda Gates Foundation (Puget Sound Partners for Global Health, Global Partnership Travel Grant), US\$4,000.

## **PUBLICATIONS**

## Articles under review or in preparation

- Fujita M, Straight B. In prep. Mother-infant infection risks differ by household livestock strategies among Kenyan agropastoralists.
- Paredes Ruvalcaba N, Odo AN, Fujita M. In prep. Variation of human milk lactoferrin in relation to maternal-infant infection status among dyads from northern Kenya.
- Fujita M, Asthana A, Wamwere-Njoroge G. In revision. Protective effect of minimally diversified diets for folate nutrition among breastfeeding mothers amid historic drought.
- Wander K, Fujita M, Mattison S, Gauck M, Duris M, Kiwelu I, Mmbaga BT. Under review. Maternal and infant predictors of milk immune activity in Kilimanjaro, Tanzania.

## Peer-reviewed Journal Articles

- 27. Vankayalapati A, Wamwere-Njoroge G, Fujita M. Forthcoming. Effects of household composition on infant feeding and mother-infant health in northern Kenya. American Journal of Human Biology. DOI: 10.1002/ajhb.23993
- 26. Wander K, Fujita M, Mattison S, Gauck M, Duris M, Kiwelu I, Mmbaga BT. 2023. Does the immune system of milk increase activity for infants experiencing infectious disease episodes in Kilimanjaro, Tanzania? American Journal of Human Biology. DOI: 10.1002/ajhb.23897
- 25. Fujita M, Wander K, Paredes Ruvalcaba N, Odo AN. 2022. Human milk lactoferrin variation in relation to maternal inflammation and iron deficiency in northern Kenya. American Journal of Human Biology 2022;e23812. DOI:10.1002/ajhb.23812
- 24. Fujita M, Brindle E. 2022. Comparing the creamatocrit of human milk before and after long-term Freezing. Experimental Results 2022(3)e11. DOI: 10.1017/exp.2022.9
- 23. Fujita M, Wander K, Tran T, Brindle E. 2022. Characterizing the extent human milk folate is buffered against maternal malnutrition and infection in drought-stricken northern Kenya. American Journal of Biological Anthropology 2022;179:171-183. DOI: 10.1002/ajpa.24603
- 22. Wander K, Fujita M, Mattison S, Duris M, Gauck M, Hopt T, Lacy K, Foligno A, Ulloa R, Dodge C, Mowo F, Kiwelu I, Mmbaga BT. 2022. Tradeoffs in milk immunity affect infant infectious disease risk. Evolution, Medicine, and Public Health 2022:295-304. DOI: 10.1093/emph/eoac020
- 21. Wander K, Fujita M, Spathis R, Li S, Armstrong D, Pechera J, Anvim R, Manganello M, Torres C, Herbin C, Cradin B, Margolin F. 2021. In vitro stimulation of whole milk specimens: a field-friendly method to assess milk immune activity. Journal of Human Lactation 37(4):736-745. DOI: 10.1177/0890334421999628
- 20. Paredes Ruvalcaba N, Bignall E, Fujita M. 2020. Age and socioeconomic status in relation to risk of maternal anemia among the Ariaal agropastoralists of northern Kenya. Human Ecology 48:47–54. DOI: 10.1007/s10745-020-00129-5
- 19. Fujita M, Wander K, Paredes Ruvalcaba N, Brindle E. 2019. Human milk sIgA antibody in relation to maternal nutrition and infant vulnerability in northern Kenya. Evolution, Medicine, and Public Health 2019(1):201-211. DOI: 10.1093/emph/eoz030
- 18. Corbitt M, Paredes Ruvalcaba N, Fujita M. 2019. Variation in breast milk macronutrient contents by maternal anemia and hemoglobin concentration in northern Kenya. American Journal of Human Biology. DOI: 10.1002/ajhb.23238
- 17. Fujita M, Paredes Ruvalcaba N, Wander K, Corbitt M, Brindle E. 2018. Buffered or impaired: Maternal anemia, inflammation and breast milk macronutrients in northern Kenya. American Journal of Physical Anthropology. DOI: 10.1002/ajpa.23752 PMCID: PMC6352968

- 16. **Fujita M**, Wander K. 2017. A test of the Optimal Iron Hypothesis among breastfeeding Ariaal mothers in northern Kenya. *American Journal of Physical Anthropology*. DOI:10.1002/ajpa.23299
- 15. **Fujita M**, Lo Y, Brindle E. 2017. Nutritional, inflammatory, and ecological correlates of maternal retinol allocation to breast milk in agro-pastoral Ariaal communities of northern Kenya. *American Journal of Human Biology*. DOI: 10.1002/ajhb.22961 PMCID: PMC5511767
- 14. Fujita M, Brindle E, Lo Y, Castro P, Cameroamortegui F. 2014. Nutrient intakes associated with elevated serum C-reactive protein concentrations in normal to underweight breastfeeding women in Northern Kenya. American Journal of Human Biology 26: 796-802. DOI: 10.1002/ajhb.22600 PMCID: PMC5298890
- 13. **Fujita M**, Roth EA, Lo Y. 2013. Letter to the editor: Response to Primack's comment: Mother's milk. *American Journal of Physical Anthropology* 152(3):427-428. DOI: 10.1002/ajpa.22364
- 12. Miller E, Aiello M, **Fujita M**, Hinde K, Milligan L, Quinn EA. 2013. Field and laboratory methods in human milk research. *American Journal of Human Biology* 25(1):1-11. Erratum in *American Journal of Human Biology* 25(3):442. DOI: 10.1002/ajhb.22334. [Contributed to writing]
- 11. **Fujita M**, Lo Y, Baranski JR. 2012. Dietary diversity score is a useful indicator of vitamin A status of adult women in northern Kenya. *American Journal of Human Biology* 24:829-834. DOI: 10.1002/ajhb.22327
- 10. **Fujita M**, Roth EA, Lo Y, Hurst C, Vollner J, Kendell A. 2012. In poor families, mothers' milk is richer for daughters than sons: A test of Trivers–Willard hypothesis in agropastoral settlements in Northern Kenya. *American Journal of Physical Anthropology* 149(1):52-59. Erratum in *American Journal of Physical Anthropology* 152(4):571. DOI: 10.1002/ajpa.22092
- 9. **Fujita M**, Roth EA, Lo Y, Hurst C, Vollner J, Kendell A. 2012. Low serum vitamin A mothers breastfeed daughters more often than sons in drought-ridden northern Kenya: A test of the Trivers-Willard hypothesis. *Evolution and Human Behavior* 33(4):357-364. DOI: 10.1016/j.evolhumbehav.2011.11.006
- 8. **Fujita M**, Shell-Duncan B, Ndemwa P, Brindle E, Lo Y, Kombe Y, O'Connor KA. 2011. Vitamin A dynamics in breastmilk and liver stores: a life history perspective. *American Journal of Human Biology* 23:664-673. DOI: 10.1002/ajhb.21195 PMCID: PMC3938187
- 7. Brindle E, **Fujita M**, Shofer J, O'Connor KA. 2010. Serum, plasma, and dried blood spot high sensitivity C-reactive protein enzyme immunoassay for population research. Journal of Immunological Methods 362:112-120. DOI: 10.1016/j.jim.2010.09.014 PMCID: PMC2964394 [Contributed to assay transfer from Northwestern U, subject recruitment, specimen collection, and assays]
- 6. **Fujita M**, Brindle E, Rocha A, Shell-Duncan B, Ndemwa P, Oconnor K. 2009. Assessment of the relative-dose response test based on serum retinol-binding protein in lieu of serum retinol for determining low hepatic vitamin A stores. *American Journal of Clinical Nutrition* 90:217-24. DOI: 10.3945/ajcn.2009.27569
- 5. Roth EA, Ngugi E, **Fujita M**. 2009. HIV/AIDS risk and worry in Northern Kenya. *Health, Risk and Society* 11(3):231-239. DOI: 10.1080/13698570902912684 [Contributed to data collection & writing]
- 4. **Fujita M**, Brindle E, Shofer J, Ndemwa P, Kombe Y, Shell-Duncan B, O'Connor KA. 2007. Retinol-binding protein stability in dried blood spots. *Clinical Chemistry* 53(11):1972-1975. DOI: 10.1373/clinchem.2007.093104
- 3. **Fujita M**. 2006. Maternal vitamin A deficiency in a settled Ariaal community in northern Kenya: a direction for future research. *Journal of Development Alternative and Area Studies* 25(3):88-100. DOI: 10.5281/zenodo.2596538
- 2. Roth EA, Ngugi E, **Fujita M**. 2006. Self deception does not explain high-risk behavior in the face of HIV/AIDS: a test from northern Kenya. *Evolution and Human Behavior* 27(1):53-62. DOI: 10.1016/j.evolhumbehav.2005.04.004 [Contributed to data collection and writing]
- Fujita M, Roth EA, Nathan M, Fratkin EM. 2004. Sedentism, seasonality and economic status: A multivariate analysis of maternal dietary and health statuses between pastoral and agricultural Ariaal and Rendille communities in northern Kenya. *American Journal of Physical Anthropology* 123(3):277-91. DOI 10.1002/ajpa.10310

## **Book Chapters**

- 2. Fujita M, Rendon M. 2013. The role of vitamin A in health of infants and vitamin A status assessment methods. In: Watson RR, Grimble G, Preedy VR, Zibadi S, editors. Nutrition in Infancy. In Series: Nutrition and Health, Vol. 1. New York: Springer Publishing. pp 441-456. DOI: 10.1007/978-1-62703-224-7
- 1. Fuiita M. Roth EA, Nathan MA, Fratkin EM. 2005. Sedentarization and seasonality: Maternal dietary and health consequences in Ariaal and Rendille communities in northern Kenya. In: Fratkin EM, Roth, EA, editors. As Pastoralists Settle: Social, Health, and Economic Consequences of the Pastoral Sedentarization in Marsabit District, Kenva. In Series: Studies in Human Ecology and Adaptation, Vol. 1. New York: Kluwer Academic/Plenum Publishers. pp 209-234. DOI: 10.1007/b107561

## **Technical Reports**

- 6. Fujita M. 2018. Final report for the project, "Effects of maternal nutrition and infant gender on breastmilk antibodies and micronutrients." National Science Foundation Biological Anthropology Program Senior Research Grant #BCS-1638167.
- 5. Fujita M. 2017. Annual report for the project, "Effects of maternal nutrition and infant gender on breastmilk antibodies and micronutrients." National Science Foundation Biological Anthropology Program Senior Research Grant # BCS-1638167.
- 4. Fujita M. 2017. Final report for the project, "Impact of Maternal Nutrition and Infant Sex on Breast Milk Quality in Polygynous Ariaal Agro-pastoralists of Northern Kenya." The Wenner-Gren Foundation Post-Ph.D. Research Grant #9278.
- 3. Fujita M. 2008. Final Report for the project, "An evolutionary perspective on mother-offspring vitamin A transfer." The Wenner-Gren Foundation Dissertation Research Grant #7460
- 2. Shell-Duncan B, Fujita M. 2008. Final report for dissertation research, "An evolutionary perspective on mother-offspring vitamin A transfer. National Science Foundation Doctoral Dissertation Improvement Grant # BCS-0622358. [Contributed to writing]
- 1. **Fujita M.** 2007. Technical report for a validation test of portable Crafti fluorometer with Kenyan samples. Micronutrient Initiative, Ottawa, Canada.

## Data in Repository

- 9. Fujita M. 2023. Ariaal MDD-W, folate & homocysteine data. Version 1. DOI: 10.5281/zenodo.7897424
- 8. Fujita M. 2023. Data for Effects of household composition on infant feeding and mother-infant health in northern Kenya. Version 2. DOI: 10.5281/zenodo.7896111
- 7. Fujita M. 2022. Data for Effects of household composition on infant feeding and mother-infant health in northern Kenya. Version 1. DOI: 10.5281/zenodo.7347573
- 6. Fujita M. 2022. Data for Variation of human milk lactoferrin in relation to maternal-infant infection status among dyads from northern Kenya. Version 1. DOI: 10.5281/zenodo.6581038
- 5. Fujita M. 2022. Data for Human milk lactoferrin variation in relation to maternal inflammation and iron deficiency in northern Kenya. Version 1. DOI: 10.5281/zenodo.6808381
- 4. Fujita M. 2021. Ariaal Milk FOLR1 Data. Version 1. DOI: 10.5281/zenodo.5527188
- 3. Fujita M. 2020. Data for B-vitamin content in maternal diet and infant morbidity among breastfeeding mother-infant dyads from northern Kenya. DOI: 10.5281/zenodo.4041966
- 2. Paredes Ruvalcaba N, Bignall E, Fujita M. 2019. Data for Age and socioeconomic status in relation to risk of maternal anemia among the Ariaal of northern Kenya. DOI: 10.5281/zenodo.3478520
- 1. **Fujita M**. 2019. Ariaal mother and milk sIgA data from 2006 drought in northern Kenya. DOI: 10.5281/zenodo.2177939

## **Published Abstracts**

- 25. Fujita M. Straight B. 2023. Selling livestock during drought increases mother-infant infection risks among Ariaal agropastoralists in northern Kenya. American Journal of Human Biology.
- 24. Paredes Ruvalcaba N, Fujtia M. 2023. Infant purees versus baby-led weaning: Variations across healthcare providers' recommendations regarding infant and young child feeding practices in central Veracruz, Mexico. American Journal of Human Biology.
- 23. Fujita M, Wander K, Paredes Ruvalcaba N, Odo A. 2022. Human milk lactoferrin variation by maternal inflammation and nutrition in northern Kenya. American Journal of Human Biology. DOI: 10.1002/ajhb.23740
- 22. Paredes Ruyalcaba N, Fujita M. 2022. Variation of human milk lactoferrin in relation to maternal-infant illness status among dyads from northern Kenya. American Journal of Human Biology. DOI: 10.1002/ajhb.23740
- 21. Fujita M, Paredes Ruvalacaba N, A Odo. 2020. Exploring maternal buffering of human milk nutrient content against evolutionary novel nutritional stress. American Journal of Human Biology 2020;32:e23408. DOI: 10.1002/ajhb.23408 (no presentation due to COVID-19)
- 20. Tran T, Fujita M. 2020. Investment in innate immune defense in northern Kenya. American Journal of Physical Anthropology 171, 287-287. DOI: 10.1002/ajpa.24023 (no presentation due to COVID-19)
- 19. Paredes Ruvalcaba N, Fujita M. 2020. Maternal and infant illness in relation to lactoferrin concentration in human milk amoung dyads from northern Kenya. American Journal of Human Biology 2020;32:e23408. DOI: 10.1002/ajhb.23408 (no presentation due to COVID-19)
- 18. Odo A, Fujita M. 2020. B-vitamin content in maternal diet and child morbidity among breastfeeding mother-infant dyads from northern Kenya American Journal of Human Biology 2020;32:e23408. DOI: 10.1002/ajhb.23408 (no presentation due to COVID-19)
- 17. Fujita M, Paredes Ruvalcaba N, Wander K, Jess, N, Brindle E. 2019. Breastmilk sIgA antibody levels in relation to maternal protein-energy nutrition, micronutrient deficiencies, and infant sex in northern Kenya. American Journal of Human Biology. DOI: 10.1002/ajhb.23214
- 16. Fujita M, Paredes Ruvalcaba N, Corbitt N. 2018. The evolutionary ecology of breastmilk folate among Ariaal agro-pastoralists in Kenya, American Journal of Physical Anthropology 165(S66):91.DOI: 10.1002/ajpa.23489
- 15. Fujita M, Wander K. 2017. Moderate iron deficiency is associated with lower prevalence of inflammation/infection among breastfeeding mothers in northern Kenya. American Journal of Human Biology. DOI: 10.1002/ajhb.22974
- 14. Fujita M, Apland A, Chang T. 2016. Modeling the impact of coping through animal milk rationing on dietary quality of Ariaal agro-pastoral mothers facing food insecurity and poverty in drought-prone northern Kenya. American Journal of Physical Anthropology 159(S62):148-9. DOI: 10.1002/ajpa.22955
- 13. Apland A, Fujita M, Chang T. 2016. The impact of food insecurity and food-based coping on serum folate status: A case study among breastfeeding Ariaal women in northern Kenya. American Journal of Physical Anthropology 159(S62):82. DOI: 10.1002/ajpa.22955
- 12. Stone J, Fujita M. 2016. Transferrin receptor protein values in dried blood spots stored for nine years demonstrate strong correlation with transferrin receptor in matched sera and with hemoglobin values assessed at the time of blood collection. American Journal of Human Biology 28(2):297.
- 11. Fujita M, E Brindle, Lo Y. 2015. Maternal anemia and acute phase reaction during breastfeeding interactively predict milk fat concentration among Ariaal mothers in northern Kenya. Am Journal of Human Biology 27(2):267.
- 10. Fujita M, Brindle E, Lo Y, Castro P, Cameroamortegui F. 2014. Nutritional intakes associated with serum C-reactive protein concentrations in normal to underweight breastfeeding women in northern Kenya. American Journal of Physical Anthropology 153(S58):122-123.

- 9. **Fujita M**, Silva HP. 2013. Diverse diets may be prophylactic against micronutrient deficiency but not against cardiovascular disease risks: case studies in under-served rural communities in Kenya and Brazil. *American Journal of Human Biology* 25(2):235–290.
- 8. **Fujita M**, Roth EA, Lo Y. 2012. In poor families mothers' milk is richer for daughters than sons: an example of Trivers-Willard effects on mother's milk in northern Kenya. *American Journal of Physical Anthropology* 147(S54):147.
- 7. **Fujita M**, Roth EA. 2011. Maternal vitamin A status and parental investment in northern Kenya. *American Journal of Human Biology* 23(2):259.
- 6. Silva HP, **Fujita M**. 2011. Westernization and nutrition in Ariaal and Quilombola women, a comparison between Kenya and Brazil. *American Journal of Human Biology* 23(2):277.
- 5. Gordon L, **Fujita M**. 2010. Birth interval and maternal liver vitamin A status in northern Kenya. *American Journal of Human Biology* 22(2):254-255.
- 4. **Fujita M**. 2009. Life-history tradeoffs can explain vitamin A levels in human milk: an example of the maternal reproductive strategy from Kenya. *American Journal of Physical Anthropology* 138(S48):130-131.
- 3. **Fujita M**. 2008. Cultural ecology and epidemiology of vitamin A deficiency among lactating mothers in northern Kenya. *American Journal of Physical Anthropology* 135(S46):100.
- 2. **Fujita M**. 2008. An evolutionary perspective on mother-offspring vitamin A transfer. *American Journal of Human Biology* 20(2):219-220.
- 1. Brindle E, **Fujita M**, Shell-Duncan B. 2008. Stability of C-reactive potein and alpha1-acid glycoprotein in dried blood spots stored in field and laboratory conditions. *American Journal of Human Biology* 20(2):215.

## Other presentations

- 22. **Fujita M**. 2022. Exploring how maternal infection and malnutrition during breastfeeding may influence immune content in mothers' milk. *Anthropology Graduate Student Research Symposium*.
- 21 **Fujita M**, Wander K, Tran T. 2021. Milk folate receptor-α content variation by maternal malnutrition and infection during drought in northern Kenya. *International Society for Evolutionary Medicine and Public Health 2021 meeting*. (https://isemph.org/)
- 20. Odo A, **Fujita M**, Nwagu E. 2020. Maternal dietary B-vitamin and infant morbidity among breastfeeding mother-infant dyads in northern Kenya. *Alliance for African Partnership African Futures Postfoctoral Program* completion presentation.
- 19. **Fujita M**, Paredes Ruvalcaba N, Wander K, Corbitt M, Brindle E. 2018. An exploratory study of the adaptive anemia hypothesis: Maternal anemia may compromise or enhance breast milk macronutrient levels depending on the type of anemia, the presence of infection, and the milk component. Platform presentation, *International Society for Evolutionary Medicine and Public Health* 2018 meeting, Park City, Utah.
- 18. **Fujita M**, Paredes Ruvalcaba N, Corbitt M. 2017. Human milk antibody as parental investment: An analysis of secretory immunoglobulin A in milk from northern Kenya in relation to maternal nutrition and infant sex. Presented by Dr. Gibson-King. Symposium: Biosocial perspectives on growth, development and Parental Investment (Co-Chairs: Badescu I & Gibson-King A), annual meeting of the *Canadian Association for Physical Anthropology*, Edmonton, Canada.
- 17. Perlman S, **Fujita M**. 2017. Gender, Poverty, and Diabetes Self-Management in Ghana. (Presenter Perlman). Eye On Africa Seminar Series, African Studies Center, MSU.
- 16. **Fujita M**, Brindle E. 2016. Another way milk vitamin A protects infants from mortality: positive correlation between vitamin A and secretory immunoglobulin A antibody in breast milk of mothers in rural Kenya. Abstract for *Micronutrient Forum* 2016, Cancun, Mexico.

- 15. **Fujita M**, Baranski J. 2015. Human milk antibody as parental investment: A preliminary analysis of secretory immunoglobulin A data from northern Kenya. Podium presentation, annual meeting of the *Canadian Association for Physical Anthropology*, Winnipeg, Canada.
- 14. **Fujita M**, Brindle E, Lo Y. 2015. Maternal anemia and acute phase reaction during breastfeeding interactively predict milk fat concentration among Ariaal mothers in northern Kenya. Plenary Session on the Importance of Human Milk in Human Evolution and Modern Health, annual meeting of the Human Biology Association, St. Louis, Missouri.
- 13. **Fujita M**, Yun-Jia Lo, Baranski J, Brindle E. 2014. In endemically vitamin A deficient northern Kenya, undernourished mothers allocate a higher proportion of blood vitamin A to breastmilk than better-nourished mothers, with effects moderated by the lactation hormone prolactin. Podium presentation, the *Canadian Association for Physical Anthropology* meeting Fredericton, Canada.
- 12. **Fujita M**, Apland A. 2013. Food insecurity, coping strategy, and nutrition among Ariaal mothers in Kenya: an exploratory study. Podium presentation, annual meeting of the *Canadian Association for Physical Anthropology*, Scarborough, Canada.
- 11. **Fujita M**, Roth EA, Lo Y, Hurst C, Vollner J, Kendell A. 2012. Poor mothers give richer milk for daughters than sons: a test of the Trivers-Willard hypothesis on milk fat concentrations in northern Kenya. Poster presentation, annual meeting of the *Canadian Association for Physical Anthropology*, Victoria, Canada.
- 10. **Fujita M**. 2012. Do mothers in poor condition breastfeed daughters more often than sons? A test of the evolutionary parental investment theory in drought-ridden agro-pastoral settlements in northern Kenya. Epidemiology Seminar Series, MSU.
- 9. **Fujita M**, Roth EA. 2011. Mothers with low vitamin A status breastfeed daughters more often than sons in drought-ridden northern Kenya: A test of the Trivers-Willard Model. Poster presentation, annual meeting of the *Human Behavior and Evolution Society*, Montpellier, France.
- 8. **Fujita M**. 2011. Understanding why vitamin A in breastmilk declines when children need it the most: data from a northern Kenyan community. Human Development Initiative Seminar Series, MSU.
- 7. **Fujita M**. 2010. Maternal vitamin A status in northern Kenya. Invited speaker, Epidemiology 200 A Multi-disciplinary Approach to Problems in Global Public Health and Epidemiology, Department of Epidemiology, College of Human Medicine, MSU.
- 6. **Fujita M**. 2010. An evidence-based approach to the fight against maternal and child vitamin A deficiency in northern Kenya. Center for Advanced Study of International Development and the Center for Gender in Global Context Friday Forum, MSU.
- 5. **Fujita M**. 2010. Biology for public health: An evidenced-based approach to the fight against maternal and child vitamin A deficiency in northern Kenya. Public Health Student Society Spring Seminar, MSU.
- 4. **Fujita M**. 2009. Current vs. Future Reproduction: Maternal Reproductive Strategy in Vitamin A Deficiency Endemic Northern Kenya. Podium presentation, annual meeting of the *Canadian Association for Physical Anthropology*, Vancouver BC, Canada.
- 3. **Fujita M**, Shell-Duncan B, Ndemwa P, Kombe Y, Brindle E, Shofer J, Oconnor KA. 2009. An Investigation of Maternal Hepatic and Breastmilk Vitamin A Trends Postpartum. Poster presentation, *Micronutrient Forum*, Beijing, China.
- 2. **Fujita M**, Brindle E, Shofer J, Ndemwa P, Kombe Y, Shell-Duncan B, O'Connor KA. 2009. Assessment of retinol-binding protein as a substitute for serum retinol in the relative-dose-response test for determining hepatic vitamin A stores. Poster. *Micronutrient Forum*, Beijing, China.
- 1. Brindle E, **Fujita M**, Shell-Duncan B. 2008. Biomarkers of inflammation for population research: Stability of C-reactive protein and alpha1-acid glycoprotein in dried blood spots. Poster presentation, annual meeting of the *Population Association of America*, New Orleans.

## Articles and presentations in student research journals and symposia

- 22. Sharma A, Fujita M. 2023. The relationship between maternal stress and the immune specificity of milk. Mid-Michigan Symposium for Undergraduate Research Experiences (Mid-SURE). East Lansing, MI.
- 21. Asthana A, Fujita M. 2023. Evaluating the association of dietary diversity and folate nutrition in breastfeeding mothers during severe drought. University Undergraduate Research and Arts Forum (UURAF). MSU.
- 20. Harkenrider A, Fujita M. 2023. Polycystic ovarian syndrome & impacts of oral contraceptives. UURAF. MSU.
- 19. Vankayalapati A, Fujita M. 2022. Alloparenting care availability and health outcomes in the mother-infant dyads of northern Kenya. UURAF. MSU.
- 18. Vankayalapati A, Fujita M. 2021. Impact of the double burden of malnutrition on human milk micronutrient levels and infant development. *Mid-SURE*. East Lansing, MI.
- 17. Bignall E, Paredes Ruvalcaba N, Fujita M. 2020. Sociodemographic variables associated to anemia among agropastoral mothers in northern-Kenya. Red Cedar Undergraduate Journal (ReCUR) 8:9-13.
- 16. Elyvine GI, Paredes Ruvalcaba N, Fujita M. 2020. Maternal inter-birth interval in relation to macronutrient content in human milk. 2020 UURAF. MSU. (presentation not possible due to COVID-19 cancellation)
- 15. Elyvine GI, Paredes Ruvalcaba N, Fujita M. 2020. Inter-birth interval and macronutrient content in human milk in northern Kenya. AAPA Undergraduate Research Symposium. (presentation not possible due to COVID-19 cancellation)
- 14. Tran T, Fujita M. 2019. Effects of milk folate (FOLR1) on child morbidity patterns in northern Kenya. Mid-SURE. East Lansing, MI.
- 13. Saeteurn QK, Paredes Ruvalcaba N, Fujita M. 2019. Food insecurity in relation to different types of anemia among breastfeeding mothers of northern Kenya. American Association of Physical Anthropologists Undergraduate Research Symposium, Cleveland, OH.
- 12. Saeteurn OK, Paredes Ruvalcaba N, Fujita M. 2019. Food insecurity in relation to different types of anemia among breastfeeding mothers of northern Kenya. UURAF. MSU. DOI: 10.5281/zenodo.2647618.
- 11. Bignall E, Paredes Ruvalcaba N, Fujita M. 2019. During drought in northern Kenya, mothers with iron deficiency anemia were younger, but not of low socioeconomic status. American Association of Physical Anthropologists Undergraduate Research Symposium, Cleveland, OH.
- 10. Bignall E, Paredes Ruvalcaba N, Fujita M. 2019. During drought in northern Kenya, mothers with iron deficiency anemia were younger, but not of low socioeconomic status. UURAF, MSU.
- 9. Corbitt M, Paredes Ruvalcaba N, Fujita M. 2018. Exploring associations between maternal anemia and breast milk macronutrients using samples from Ariaal women in northern Kenya. Poster presentation, UURAF. MSU.
- 8. Bignall E, Paredes Ruvalcaba N, Fujita M. 2017. Differences in maternal prolactin levels in relation to infant sex, breastfeeding status, and nutritional status. Poster presentation, First Annual Anthropology Research Symposium and Showcase for Undergraduate Students, MSU.
- 7. Rife A, Fujita M. 2016. The effects of maternal nutritional status on breast milk secretory Immunoglobulin A antibody in rural Kenya. Poster presentation, UURAF. MSU.
- Stone J, Fujita M. 2016. The importance of dietary iron and vitamin C among breastfeeding Ariaal mothers in northern Kenya: analysis of serum transferrin receptor protein in relation to 24-hour dietary recalls. Poster presentation, UURAF. MSU.
- 5. Apland A, Fujita M. 2015. Pathways between food insecurity and serum folate status through coping strategies: A case study among breastfeeding women in drought stricken northern Kenya. Poster presentation. UURAF. MSU.
- 4. Apland A, Fujita M. 2015. Folate Receptor 1 (FOLR1) adjusted for hormonal status serves as a marker of folate nutrition. Undergraduate Research Symposium of the American Association of Physical Anthropologists, St. Louis, MO.

- 3. Apland A, **Fujita M**. 2014. Food insecurity, folate intake, and the moderating effect of coping strategy among Ariaal mothers in Kenya. Undergraduate Research Symposium of the *American Association of Physical Anthropologists*, Calgary, Canada.
- 2. Apland A, **Fujita M**. 2014. Food insecurity, food stretching, and folate intake among Ariaal mothers in Kenya. Poster presentation, *UURAF*, MSU.
- 1. Apland A, **Fujita M**. 2013. Food insecurity and coping strategy among Ariaal mothers in Kenya. Poster presentation, *UURAF*. MSU.

#### PROFESSIONAL AFFILIATIONS AND SERVICE

#### Peer Review Activities

Graduate Women in Science National Fellowship Program grant review (2022)

Advisory Panelist for the National Science Foundation (2020, 2021)

Canadian Institute of Health Research NCOHR Grant review (2019, 2020, 2021)

National Science Foundation Biological Anthropology DDRI grant review (2019)

National Science Foundation Biological Anthropology Program grant review (2017, 2019)

## Manuscript reviewer:

American Journal of Biological Anthropology | American Journal of Clinical Nutrition | American Journal of Human Biology | American Journal of Physical Anthropology | Annals of Human Biology | Annals of the New York Academic Sciences | Anthropologica | Current Zoology | Evolution and Human Behavior | Food and Foodways | Health, Risk & Society | Human Ecology | Human Nature | Journal of Nutrition | Nutrition: the International Journal of Applied and Basic Nutritional Sciences | Pediatric Research | PLOS Global Public Health | PLOS One

## Offices and Committees

Chair, Publications Committee, Human Biology Association (2023-2027)

Member, Editorial Board, PLOS Global Public Health, (2022-present)

Member, Editorial Board, Experimental Results (2022-2023)

Member, Program Committee, Human Biology Association (2022-2023)

Member, Program Committee, American Association of Physical Anthropologists (2012-2016)

## Other Engagements

Mentor, Community Building and Network Program, Human Biology Association (2022)

Judge, Student Prize Committee, Human Biology Association (2021, 2022 annual meetings)

Abstract Reviewer, Education and Professional Development Committee, American Society for Nutrition (ASN) Scientific Sessions (2017 Experimental Biology meeting)

Co-Chair, the Symposium on the Evolutionary Biology of Primate Lactation, the American Association of Physical Anthropologists annual meeting (2009)

## **CONSULTATIONS**

Key external expert for the WHO Micronutrients Unit, Geneva, Switzerland (2009 - 2010)

Performance evaluation of a portable fluorometer for the Micronutrient Initiative (2006 - 2007)

Enzyme immunoassay workshop, Centre for Public Health Research, Kenya Medical Research Institute (2006)

Workshop on increasing vitamin A intake for northern Kenyan mothers (with Antonella Lobura of the Food for the Hungry International, Marsabit, Kenya; 2006)

Product label review for retinol-binding protein ELISA kit, PATH, Seattle (2005)

Technology transfer (DBS C-reactive protein ELISA) from Northwestern U to UW (2004)

## University/Department Service

Core Faculty, African Studies Center, MSU (2008-present)

Core Faculty, Center for Gender in Global Context, MSU (2008-present)

Academic Hearing Boards, MSU Office of Student Support & Accountability (2019-present)

Faculty Advisory Committee, MSU Anthropology (2011-2015, 2022-present)

Academic Hearing Board, MSU College of Social Science (2017-2023)

Faculty Search Committee, MSU Anthropology (2023)

Faculty Advisory Council, MSU College of Social Science (2022)

Admissions Committee, MSU Anthropology (2008, 2009, 2020-2022)

Graduate Diversity Task Force, MSU Anthropology (2020 - 2021)

Graduate Curriculum and Programs Committee, MSU Anthropology (2009-2011, 2019-2020)

Chair, Graduate Curriculum and Programs Committee, MSU Anthropology (2016 - 2019)

Judge, University Undergraduate Research and Arts Forum (UURAF), MSU (2010, 2015, 2019)

Core Faculty, MSU Center for Advanced Study of International Development (2008-2019)

Foreign Language and Area Studies Committee, African Studies Center (2015-2016)

Advisor, MSU College of Social Science Dean's Assistantship scholar (A. Apland; 2014-2015)

Referee, Gendered Perspectives on International Development Working Papers, MSU (2014)

Forensic Anthropology Faculty Search Committee, MSU Anthropology (2012-2014)

Grant Reviewer, MSU Office of the Vice President for Research and Graduate Studies (2009)

African Language Work Group, MSU African Studies Center (2009)

Biodemography Core Advisory Board, UW Center for Studies in Demography & Ecology (2005-2007)

## STUDENT THESES AND DISSERTATION GUIDANCE COMMITTEES SERVED (C=current)

Anderson-Chavarria, Lily Anne
Bird, Catherine
PhD Committee Member
PhD Committee Member

Bodnar, MaryKate First-Year Advisor

Boffi, Emilia PhD Committee Member Colas, Kelly PhD Committee Member Ding, Jessica (C) PhD Committee Chair First-Year Advisor

Guay, Evan PhD Committee Member
Hurst, Carolyn PhD Committee Member
Jackson, Brett PhD Committee Member
Karim, Tazin MA Committee Member

Kutch, Libbey PhD Committee Member (Geography)

Long, Holly (C) PhD Committee Member Michel, Amy MA Committee Member Paredes Ruvalcaba, Nerli (C) PhD Committee Chair Perlman, Sabrina PhD Committee Chair PhD Committee Member Rovin, Kimberly Spiros, Micayla (C) PhD Committee Member Vollner, Jennifer PhD Committee Member Zblewski, Emma (C) PhD Committee Member

## STUDENTS AND POSTDOCTORAL SCHOLARS SUPERVISED IN LABORATORY (C=CURRENT)

Al-Ali, Hana Jasem (Human Biology): Undergraduate Volunteer

Apland, Allison (Anthropology/History): Professorial Assistant, CSS Dean's Scholar

Asthana, Ananyaa (Physiology/Health Promotion): Professorial Assistant (C)

Baranski, Janine (Biomedical Laboratory Diagnostics): Professorial Assistant

Bignall, Emma (Anthropology): Undergraduate Research Assistant; Postgraduate Intern

Cameroamortegui, Felipe (Osteopathic Medicine): Medical Student Researcher

Carpenter, Kelsey (Anthropology): Volunteer

Castro, Pamela (Osteopathic Medicine): Medical Student Researcher

Corbitt, Mary (Animal Science): Undergraduate Laboratory Intern

DelBene, Erin (Anthropology/Physiology): Undergraduate Research Assistant

Ding Jessica (Anthropology/Human Medicine): Graduate Researcher (C)

Cools, Kyla (Anthropology): Undergraduate Volunteer

Elyvine Ingabire, Gasana (Nutritional Sciences/Women Studies): Undergraduate Researcher.

Harkenrider, Allison (Anthropology/Human Biology, Pre-Medical): Undergraduate Researcher (C)

Ghishan, Maria (Human Biology, Pre-Medical): Undergraduate Volunteer

Mourou, Natalie (Anthropology): Undergraduate Volunteer

Odo, Amelia Ngozi (U of Nigeria, Nsukka): African Futures Program Postdoctoral Scholar (C)

Paredes Ruvalcaba, Nerli (Anthropology): Graduate Research Assistant; NSF Doctoral Fellow (C)

Perlman, Sabrina (Anthropology): Graduate Research Assistant

Pham, Rachel (Human Biology): Undergraduate Volunteer

Rendon, Mariana (Microbiology/Molecular Genetics): Undergraduate Research Assistant

Rife, Alexis (Anthropology): Undergraduate Research Assistant

Saeteurn, Quexteen (Anthropology): Undergraduate Research Assistant

Sass, Savanna (Anthropology): Undergraduate Research Assistant

Sharma, Aditi (Anthropology, Human Biology): Undergraduate Research Assistant, Dean's Scholar (C)

Shingleton, Sabrina (Anthropology): Undergraduate Research Assistant

Stone, Jonah (Anthropology/Human Biology): Undergraduate Research Assistant

Tran, Tin (Anthropology/Biochemistry, Grinnell College): Summer Research Opportunity Program Scholar

Vankayalapati, Amulya (Nutritional Sciences, Pre-Med): Undergraduate Researcher, postgraduate mentee (C)

Yabes, Izzy (Neuroscience): Undergraduate Research Assistant

#### **COURSES TAUGHT**

Biocultural Evolution (ANP 840) | Quantitative Methods in Anthropology (ANP 846)

Nutrition in Biocultural Perspective (ANP 892) | Human Adaptability (ANP 443)

Intro to Physical Anthropology (ANP 206, formerly ANP 202)

Time Space Change in Human Society (ISS 220, Integrative Studies in Social Science)

## PROFESSIONAL MEMBERSHIPS

Healthy Mothers Healthy Babies Consortium of the Micronutrient Forum

**Human Biology Association** 

International Society for Evolution, Medicine and Public Health

International Society for Research in Human Milk and Lactation

American Association of Physical Anthropologists (2007-2019)

Canadian Association for Physical Anthropology (2007-2018)

American Society for Nutrition (2008-2017)

Human Behavior and Evolution Society (2011-2013)

#### CITIZENSHIPS AND LANGUAGES

Japanese Citizen, US Permanent Resident, Canadian Landed Immigrant

Native speaker of Japanese, Fluent in English, Basic French, Basic Swahili