

Josh M. Jorgensen, PhD, MPH
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Education:

University of California at Davis, Department of Nutrition

PhD in Nutritional Biology with an emphasis in International and Community Nutrition, 2014
Dissertation: Predictors of Iron Status and Oxidative Stress in Lactating Women: Effects of Iron Supplementation, Inflammation, and High BMI

University of California at Davis, Department of Public Health Science

Masters in Public Health, 2006

University of California at Davis, School of Medicine

Medical Student, Completed Two Years

University of California at Davis

Bachelor of Science in Nutrition Science, 2001
Graduated with High Honors

Teaching:

Assistant Professor of Teaching, Sept 2024-Present; Instructor, Mar 2015-Sept 2024 – School of Nutrition and Public Health, Oregon State University

Courses taught:

- HHS 440/540 – Global Nutrition, Spring 2020, Winter 2022, Winter 2023, Winter 2024. Upper division undergraduate and graduate level course that introduces students to causes and consequences of malnutrition (both over- and undernutrition), and potential solutions to malnutrition. Ecampus class with approximately 30 students per section.
- Nutrition 216 – Food and Culture, Spring and Summer 2020, Spring, Summer, and Fall 2021, Summer and Fall 2022, Winter, Spring, and Summer (2 sessions) 2023, Summer 2024. Introduction to cultural, regional, and religious influences on foods typically consumed around the world. Ecampus class with approximately 40 students per section.
- Nutrition 225 – General Human Nutrition, Spring and Summer 2015, Winter and Fall 2016, Winter and Spring 2018, Winter and Spring 2020, Fall 2021, Spring and Fall 2022, Spring and Fall 2023, Winter, Summer, and Fall 2024. General nutrition course for non-nutrition majors, ranged from 70 to 140 students per quarter for the on-campus version and 40 students for the Ecampus version.
- Nutrition 240 – Human Nutrition, Fall 2015, Spring 2016, Winter 2019, Winter 2022, Winter and Fall 2023, Winter and Fall 2024. Introductory course for nutrition and kinesiology majors, range between 70-140 students per quarter for the on-campus version and 40 students for the Ecampus version.
- Nutrition 241 – Applications in Human Nutrition, Fall 2019, Winter 2022, Fall 2024. Recitation complement to NUTR 240.
- Nutrition 312 – Issues in Nutrition and Health, Summer 2016, Summer 2017, Fall 2017, Spring, Summer 2018, Spring, Summer, Fall 2019, Winter, Spring, Summer 2020, Summer 2021. Upper division course that teaches students to apply scientific knowledge and critical thinking to current nutrition issues controversies. Approximately 35 students per quarter.
- Nutrition 325 – Nutrition Through the Life Cycle, Winter 2017, Winter and Spring 2021, Spring 2022. Upper division course that covers nutritional needs and concerns in pregnancy and lactation, infancy, childhood, adolescence, adult and later years. Approximately 30 students per quarter.

- Nutrition 417/517 – Human Nutrition Science (Macronutrients), Fall 2023. Upper division undergraduate and graduate level course on macronutrient biochemistry and nutritional physiology.

Curriculum Development:

- Co-Developing Nutrition 150 – Food For All: You, Us, and the Planet, Spring 2024. Introduction of nutrition topics and controversies.
- Approved to transition Nutrition 216 to a Core Education class, Summer 2025. Will redevelop the class to align with Core Ed requirements.
- Redeveloped Nutrition 225 Ecampus, Fall 2023 – Complete overhaul of course content and Canvas site. New Open Educational Resource textbook.
- Redeveloped Nutrition 325 Ecampus, Spring 2021 – Complete overhaul of course content and Canvas site.
- Developed HHS440/540 – Global Nutrition, Spring 2020. Developed new course content and Canvas site.
- Redeveloped Nutrition 312 Ecampus, Spring 2019 – Complete overhaul of course content and Canvas site.

Guest Lecture:

- Nutrition Recommendations and Nutritional Content of Crops – World Food Crops (CROP 330), April 2024

Mentorship:

- Nutrition and Health Sciences (NHS) Co-Director, Sept 2023-Present. Provide guidance and resources to Nutrition majors with an NHS emphasis. NHS students typically pursue careers as health care providers, academia, the food industry, or health-related research.
- Graduate Student Committee:
 - Master's Student Caroline Duncan
 - Master's/Dietetic Intern Jesse Gunnell

Employment/Research:

Postdoctoral researcher- International Lipid-based Nutrient Supplement Project (iLiNS) and Breast Milk Microbiome and Immunity Project (BMMI)

March 2014-July 2018

Oversaw the collection, processing, storage, and shipment of biospecimens from the Malawi portions of the iLiNS and BMMI studies. Analyzed maternal data to examine the effect of lipid-based nutrient supplements (LNS) on hemoglobin, iron status, and inflammation, as well as associations between hemoglobin, iron status, inflammation, BMI, and gestational weight gain on birth outcomes. Also analyzed the effect of LNS on human milk oligosaccharides (HMOs) and bioactive breast milk proteins, the associations between HMOs and bioactive proteins and infant growth, development, morbidity, and inflammation, and maternal predictors of HMOs and bioactive proteins.

Consultant - Home Fortification Technical Advising Group (HF-TAG)

October 2017 – March 2018

Identified gaps in knowledge related to HF that may require further research for updated recommendations for home (point-of-use) fortificants. Interviewed experts in HF and researched each potential ingredient and nutrient in HF for available evidence on dietary justification, safety, cost, interactions and other issues.

Consultant - World Health Organization – Variation in Hemoglobin Thresholds for Anemia Across the Lifecycle

June – December 2017

Literature review on suggested cutoffs used in different populations to define anemia in different life stages published as part of a WHO technical brief on the use and interpretation of hemoglobin concentrations for assessing anemia status in individuals and populations. Presented the findings at meetings at WHO December 2017 and April 2021.

Specimen Collection and Processing Coordinator-International Lipid-based Nutrient Supplement Project (iLiNS) and Breast Milk Microbiome and Immunity (BMMI)

July 2009-Sept 2014

Developed and updated plasma and urine collection and processing protocols for iLiNS and BMMI studies in Burkina Faso, Ghana, and Malawi. Maintained inventory of laboratory supplies and supplements. Traveled to Malawi 5 times to oversee collection, processing, and storage chain, and to retrain laboratory staff.

International Zinc Nutrition Consultative Group (IZiNCG) Document Manager

June 2007-2011

Conducted literature review for a meta-analysis evaluating efficacy of zinc supplementation in the prevention of diarrhea. Responsible for maintenance of IZiNCG's online literature database, a collection of comprehensive international human zinc supplementation journal articles.

Instructor—Nutrition 190-Proseminar in Nutrition, UC Davis

Spring 2009, Winter 2010, Fall 2010

Course designed to teach senior nutrition students how to critically evaluate and present analysis of evidence-based literature. Emphasis on comprehension of nutrition-related journal articles and critical analysis of research methods, statistical analyses, and outcomes. Assisted with literature searches and preparation of PowerPoint presentations on an article of their choosing. Provided assistance in creating an abstract of the article each student chooses.

Publications:

Haskell MJ, Maleta K, Arnold CD, Jorgensen JM, Fan YM, Ashorn U, Matchado A, Monangi NK, Zhang G, Xu H, Belling E, Landero J, Chappell J, Muglia LJ, Hallman M, Ashorn P, Dewey KG.

Provision of Small-Quantity Lipid-Based Nutrient Supplements Increases Plasma Selenium Concentration in Pregnant Women in Malawi: A Secondary Outcome of a Randomized Controlled Trial.

Curr Dev Nutr. 2022 Mar 7;6(3):nzac013. doi: 10.1093/cdn/nzac013.

Wessells KR, Arnold CD, Stewart CP, Prado EL, Abbeddou S, Adu-Afarwuah S, Arnold BF, Ashorn P, Ashorn U, Becquey E, Brown KH, Byrd KA, Campbell RK, Christian P, Fernald LCH, Fan YM, Galasso E, Hess SY, Huybregts L, Jorgensen JM, Kiprotich M, Kortekangas E, Lartey A, Le Port A, Leroy JL, Lin A, Maleta K, Matias SL, Mbuya MNN, Mridha MK, Mutasa K, Naser AM, Paul RR, Okronipa H, Ouédraogo JB, Pickering AJ, Rahman M, Schulze K, Smith LE, Weber AM, Zongrone A, Dewey KG.

Characteristics that modify the effect of small-quantity lipid-based nutrient supplementation on child anemia and micronutrient status: an individual participant data meta-analysis of randomized controlled trials.

Am J Clin Nutr. 2021 Nov 2;114(Suppl 1):68S-94S. doi: 10.1093

Jorgensen JM, Young R, Ashorn P, Ashorn U, Chaima D, Davis JCC, Goonatileke E, Kumwenda C, Lebrilla CB, Maleta K, Sadalaki J, Totten SM, Wu LD, Zivkovic AM, Dewey KG.

Associations of human milk oligosaccharides and bioactive proteins with infant morbidity and inflammation among Malawian mother-infant dyads.

Curr Dev Nutr. 2021 Apr 29;5(5):nzab072. doi: 10.1093

Haskell MJ, Young R, Adu-Afarwuah S, Lartey A, Okronipa HET, Maleta K, Ashorn U, Jorgensen JM, Fan YM, Arnold CD, Allen LH, Ashorn P, Dewey KG.

Small-Quantity Lipid-Based Nutrient Supplements Do Not Affect Plasma or Milk Retinol Concentrations Among Malawian Mothers, or Plasma Retinol Concentrations among Young Malawian or Ghanaian Children in Two Randomized Trials.

J Nutr. 2021 Apr 8;151(4):1029-1037. doi: 10.1093

Jorgensen JM, Young R, Ashorn P, Ashorn U, Chaima D, Davis JCC, Goonatilleke E, Kumwenda C, Lebrilla CB, Maleta K, Prado EL, Sadalaki J, Totten SM, Wu LD, Zivkovic AM, Dewey KG.
Associations of human milk oligosaccharides and bioactive proteins with infant growth and development among Malawian mother-infant dyads.
Am J Clin Nutr. 2020 Oct 23;113(1):209-20.

Adu-Afarwuah S, Arnold CD, Maleta K, Ashorn P, Ashorn U, Jorgensen JM, Fan YM, Nkhoma M, Bendabenda J, Matchado A, Dewey KG.
Consumption of multiple micronutrients or small-quantity lipid-based nutrient supplements containing iodine at the recommended dose during pregnancy, compared with iron and folic acid, does not affect women's urinary iodine concentration in rural Malawi: a secondary outcome analysis of the iLiNS DYAD trial.
Public Health Nutr. 2020 Oct 15:1-9.

Kamng'ona AW, Young R, Arnold CD, Patson N, Jorgensen JM, Kortekangas E, Chaima D, Malamba C, Ashorn U, Cheung YB, Ashorn P, Maleta K, Dewey KG.
Provision of Lipid-Based Nutrient Supplements to Mothers During Pregnancy and 6 Months Postpartum and to Their Infants from 6 to 18 Months Promotes Infant Gut Microbiota Diversity at 18 Months of Age but Not Microbiota Maturation in a Rural Malawian Setting: Secondary Outcomes of a Randomized Trial.
J Nutr. 2020 Apr 1;150(4):918-928.

Kamng'ona AW, Young R, Arnold CD, Kortekangas E, Patson N, Jorgensen JM, Prado EL, Chaima D, Malamba C, Ashorn U, Fan YM, Cheung YB, Ashorn P, Maleta K, Dewey KG.
The association of gut microbiota characteristics in Malawian infants with growth and inflammation.
Sci Rep. 2019 Sep 9;9(1):12893.

Kortekangas E, Young R, Cheung YB, Fan YM, Jorgensen JM, Kamng'ona AW, Chaima D, Ashorn U, Dewey KG, Maleta K, Ashorn P.
A Prospective Study on Child Morbidity and Gut Microbiota in Rural Malawi.
J Pediatr Gastroenterol Nutr. 2019 Oct;69(4):431-437.

Jorgensen JM, Crespo-Bellido M, Dewey KG.
Variation in hemoglobin across the life cycle and between males and females.
Ann N Y Acad Sci. 2019 Aug;1450(1):105-125.

Oaks BM, Jorgensen JM, Baldiviez LM, Adu-Afarwuah S, Maleta K, Okronipa H, Sadalaki J, Lartey A, Ashorn P, Ashorn U, Vosti S, Allen LH, Dewey KG.
Prenatal Iron Deficiency and Replete Iron Status Are Associated with Adverse Birth Outcomes, but Associations Differ in Ghana and Malawi.
J Nutr. 2019 Mar 1;149(3):513-521.

Gondwe A, Ashorn P, Ashorn U, Dewey KG, Maleta K, Nkhoma M, Mbotwa J, Jorgensen JM.
Pre-pregnancy body mass index (BMI) and maternal gestational weight gain are positively associated with birth outcomes in rural Malawi.
PLoS One. 2018 Oct 23;13(10):e0206035.

Jorgensen JM, Ashorn P, Ashorn U, Baldiviez LM, Gondwe A, Maleta K, Nkhoma M, Dewey KG.
Effects of lipid-based nutrient supplements or multiple micronutrient supplements compared with iron and folic acid supplements during pregnancy on maternal haemoglobin and iron status.
Matern Child Nutr. 2018 Oct;14(4):e12640.

Ashorn P, Hallamaa L, Allen LH, Ashorn U, Chandrasiri U, Deitchler M, Doyle R, Harjunmaa U, Jorgensen JM, Kamiza S, Klein N, Maleta K, Nkhoma M, Oaks BM, Poelman B, Rogerson SJ, Stewart CP, Zeilani M, Dewey KG.
Co-causation of reduced newborn size by maternal undernutrition, infections, and inflammation.

Matern Child Nutr. 2018 Jul;14(3):e12585.

Harjunmaa U, Doyle R, Järnstedt J, Kamiza S, Jorgensen JM, Stewart CP, Shaw L, Hallamaa L, Ashorn U, Klein N, Dewey KG, Maleta K, Ashorn P.

Periapical infection may affect birth outcomes via systemic inflammation.

Oral Dis. 2017 Dec 12. doi: 10.1111/odi.12817. [in press]

Jorgensen JM, Arnold C, Ashorn P, Ashorn U, Chaima D, Cheung YB, Davis JC, Fan YM, Goonatilke E, Kortekangas E, Kumwenda C, Lebrilla CB, Maleta K, Totten SM, Wu LD, Dewey KG.

Lipid-Based Nutrient Supplements During Pregnancy and Lactation Did Not Affect Human Milk Oligosaccharides and Bioactive Proteins in a Randomized Trial.

J Nutr. 2017 Oct 1;147(10):1867-1874.

Jorgensen JM, Yang Z, Lönnerdal B, Chantry CJ, Dewey KG.

Plasma Ferritin and Hepcidin Are Lower at 4 Months Postpartum among Women with Elevated C-Reactive Protein or α 1-Acid Glycoprotein.

J Nutr. 2017 Jun;147(6):1194-1199.

Ashorn P, Poelman B, Dewey KG, Maleta K, Klein N, Rogerson S, Meshnick SR, and the LNS-RTI Study Team.

The Impact of Dietary Supplementation with Lipid-Based Nutrient Supplements on Maternal Health and Pregnancy Outcomes in Rural Malawi. Washington, DC: FHI 360/Food and Nutrition Technical Assistance III Project (FANTA). 2017.

Ashorn P, Poelman B, Dewey KG, Maleta K, Klein N, Rogerson S, Meshnick SR, and the LNS-RTI Study Team.

The Associations between Nutrition, Stress, Infection, and Inflammation and Maternal Health and Pregnancy Outcomes in Rural Malawi. Washington, DC: FHI 360/Food and Nutrition Technical Assistance III Project (FANTA). 2017.

Ashorn P, Poelman B, Dewey KG, Maleta K, Klein N, Rogerson S, Meshnick SR, and the LNS-RTI Study Team.

Pathways Leading to Adverse Birth Outcomes in Rural Malawi. Washington, DC: FHI 360/Food and Nutrition Technical Assistance III Project (FANTA). 2017.

Jorgensen JM, Yang Z, Lönnerdal B, Chantry CJ, Dewey KG.

Effect of iron supplementation during lactation on maternal iron status and oxidative stress: a randomized controlled trial. Matern Child Nutr. 2017 Oct;13(4).

Blanton LV, Charbonneau MR, Salih T, Barratt MJ, Venkatesh S, Ilkaveya O, Subramanian S, Manary MJ, Trehan I, Jorgensen JM, Fan YM, Henrissat B, Leyn SA, Rodionov DA, Osterman AL, Maleta KM, Newgard CB, Ashorn P, Dewey KG, Gordon JI.

Gut bacteria that prevent growth impairments transmitted by microbiota from malnourished children. Science. 2016 Feb 19;351(6275)

Charbonneau MR, O'Donnell D, Blanton LV, Totten SM, Davis JC, Barratt MJ, Cheng J, Guruge J, Talcott M, Bain JR, Muehlbauer MJ, Ilkaveya O, Wu C, Struckmeyer T, Barile D, Mangani C, Jorgensen J, Fan YM, Maleta K, Dewey KG, Ashorn P, Newgard CB, Lebrilla C, Mills DA, Gordon JI.

Sialylated Milk Oligosaccharides Promote Microbiota-Dependent Growth in Models of Infant Undernutrition. Cell. 2016 Feb 25;164(5):859-71.

Wessells KR, Jorgensen JM, Hess SY, Woodhouse LR, Peerson JM, Brown KH.

Plasma zinc concentration responds rapidly to the initiation and discontinuation of short-term zinc supplementation in healthy men. Journal of Nutrition 2010 Dec;140(12):2128-33.

Miller PL, Jorgensen JM, Ernst AA, Weiss SJ.

Sexual assault by intimate partner at UCDMC. Academic Emergency Medicine. 2002 May; 9(5):475

Weiss SJ, Jorgensen JM, Kirk JD, Diercks DB, Drnst AA, Godorov G.

Value of cardiac physiological changes during exercise stress testing (EST) in predicting coronary artery disease in chest pain patients. Academic Emergency Medicine. 2001 May;8(5):564. I presented the poster at the Academic Emergency Medicine conference in Atlanta, May 2001.

Presentations:

Variation in hemoglobin across the life cycle.

World Health Organization technical meeting on considerations to determine hemoglobin concentrations to define anemia in the lifecycle. April 27-29, 2021.

Virtual meeting.

Use of Peer-Review in Online Learning

Online Learning Consortium – Accelerate Conference

November 2019

Orlando, FL

Variation in hemoglobin across the life cycle.

Josh M Jorgensen, Maya Crespo-Bellido, and Kathryn G Dewey

November/December 2017

World Health Organization, Geneva, Switzerland

Associations between human milk oligosaccharides or bioactive proteins and infant growth and development.

Josh M Jorgensen, Rebecca Young, Per Ashorn, Ulla Ashorn, David Chaima, Jasmine C C Davis, Elisha Goonatileke, Chiza Kumwenda, Carlito B Lebrilla, Kenneth Maleta, Elizabeth L Prado, John Sadalaki, Sarah M Totten, Lauren D Wu, Kathryn G Dewey

July 2017

Federation of American Societies for Experimental Biology, conference on Origins and Benefits of Biologically Active Components in Human Milk, Lisbon, Portugal

Iron supplementation during lactation increases hemoglobin without an increase in iron status or oxidative stress.

JM Jorgensen, Z Yang, B Lonnerdal, CJ Chantry, LH Allen, KG Dewey

April, 2012

Experimental Biology, San Diego, CA

Inflammation in postpartum women is inversely related to transferrin saturation, but is not correlated with ferritin or hepcidin.

JM Jorgensen, Z Yang, B Lonnerdal, CJ Chantry, LH Allen, KG Dewey

April, 2012

Experimental Biology, San Diego, CA

Increased BMI is associated with lower iron status and increased inflammation and oxidative stress in postpartum women.

JM Jorgensen, Z Yang, B Lonnerdal, CJ Chantry, LH Allen, KG Dewey

April, 2012

Experimental Biology, San Diego, CA

Value of cardiac physiological changes during exercise stress testing (EST) in predicting coronary artery disease in chest pain patients.

Weiss SJ, Jorgensen JM, Kirk JD, Diercks DB, Drnst AA, Godorov G.

May 2001

National Society for Academic Emergency Medicine conference in Atlanta, GA.