

# Sarah J. Zyba, PhD

School of Public Health  
University of California, Berkeley

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[LinkedIn](#) [ResearchGate](#) [Google Scholar](#)

## EDUCATION

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**Ph.D. Nutritional Biology**, Program in International and Community Nutrition **December 2017**

*University of California, Davis; Davis, CA*

Awards/Honors: Graduate Program Fellowship Allocation, Jastro Shields

Graduate Research Scholarship

**B.A. Psychology**; Summa cum Laude **May 2007**

*San Diego State University; San Diego, CA*

Awards/Honors: Mortar Board Honor Society, Psi Chi Honor Society, California Governor's Scholarship

## RESEARCH AND PROFESSIONAL EXPERIENCE

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**School of Public Health, University of California, Berkeley** **August 2021- present**

Lecturer

- Develop graduate-level courses in public health nutrition as part of the online Master's in Public Health program.
- Facilitate courses using 100% online and blended formats through Canvas.
- Coordinate guest speakers to bring community-based experiences into the classroom.
- Research materials for class topics to incorporate anti-racism literature and themes.
- Deliver curriculum as sole instructor for upper-division undergraduate and graduate classes of 30 – 60 students.
- Provide academic and career advice to graduate-level students.
- Supervise graduate student instructors.

**UNICEF** **December 2020 – June 2021**

Consultant

- Authored a background document summarizing the statement of knowledge on the interaction between nutrition status and COVID-19 infection in children.
- Established and facilitated an expert meeting to discuss nutrition and COVID-19 in children; organized and summarized key findings from the meeting.
- Developed a guide on key nutrition indicators to track related to COVID-19 infection and summarize data from UNICEF country offices on nutritional characteristics of children who have COVID-19.

**Institute for Global Nutrition, University of California, Davis** **January 2018 – August 2021**

Postdoctoral scholar

- Analyzed data and authored reports to describe the plasma metabolomic profile changes that occurred in young Malawian children after consuming a daily egg for 6 months as part of the Mazira Project.

- Developed the protocol, standard operating procedures, questionnaires and training documents for a study to evaluate the acceptability of a proposed multiple micronutrient fortified bouillon cube formulation for the CoMIT (West Africa Condiment Micronutrient Innovation Trial) Project.
- Liaised with bouillon cube industry partners and other research organizations to determine optimal micronutrient concentrations to be included in multiple micronutrient fortified bouillon cube for the CoMIT project.
- Designed and implemented a multi-study project in women and young children to evaluate several compounds for potential use as adherence markers to track consumption of nutrient supplements; analyze and interpret data from the project.
- Mentored undergraduate student research interns.

**Institute for Global Nutrition, University of California, Davis**  
**Medical Research Council Keneba, The Gambia**

**January 2017 - July 2017**

Scientific Field Coordinator/ Graduate Student Researcher

- Coordinated human clinical study evaluating zinc absorption from a zinc fortified small-quantity lipid-based nutrient supplement in 30 Gambian children age 18 – 24 months.
- Developed data collection forms and study specific protocols.
- Organized and monitored data collection procedures, including: anthropometric measurements, preparation and administration of standardized meals and oral stable zinc isotopes, collection of blood and urine samples, coordination of sample transport, and administration of stable zinc isotope infusions.
- Trained and supervised all study staff.
- Ensured study activities adhered to ICH Good Clinical Practices guidelines.

**Children’s Hospital Oakland Research Institute; Oakland, CA**

**September 2011 – September 2014**

Study Coordinator/ Staff Research Associate II

- Coordinated human clinical study evaluating changes in zinc biomarkers with a zinc depletion/ repletion study design in 18 adult men.
- Oversaw participant recruitment, evaluated compliance in study methodology, and liaised with clinical and laboratory staff.
- Managed clinical protocols including conducting BOD POD body composition assessments, training nursing staff on stable zinc isotope intravenous administration, and preparing study meals with oral stable zinc isotopes.
- Lab experience included assay design, colorimetric analyses, zinc isolation from urine specimens using chromatography, composite meal preparation and mineral analysis, zinc radioisotope methodology, DNA extraction and gene expression assays, and protein isolation.
- Wrote data collection forms using File Maker Pro software.
- Authored reports and presented project at symposia.
- Supervised and mentored undergraduate interns.

**United States Peace Corps; Uganda**

**August 2007 - October 2009**

Community Health Extension Agent

- Taught maternal/child health, nutrition, and disease prevention education to community members.
- Managed accounts and coordinated the building of a primary school library; secured \$5,000 Small Projects Assistance (SPA) grant.
- Worked in a community health center to develop improved drug-dispensing practices to increase drug adherence of patients, tracked disease prevalence in the community, and assisted with mobile immunization clinics.
- Facilitated weekly Life Skills training programs at two local primary schools.
- Wrote quarterly reports on project activities and breadth of coverage.

## TEACHING EXPERIENCE

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**Instructor**, Nutrition Assessment **Spring 2022**  
PHW206A, University of California, Berkeley  
Developed course material for online format, instructed 30 graduate-level students

**Instructor**, Public Health Aspects of Maternal and Child Nutrition **Fall 2021**  
PH 207A, University of California, Berkeley  
Developed course material, instructed class of 30 graduate-level students

**Instructor**, Nutrition in Developing Countries **Summer 2017 - 2021; Spring 2021**  
PH 118, University of California, Berkeley  
Developed course material, taught course to 30 – 55 students, adapted course to online instruction

**Graduate Student Instructor**, Current Topics and Controversies in Nutrition **Fall 2014, 2016**  
NUT 11, University of California, Davis  
Led 2 sections of 25 students per quarter

**Graduate Student Instructor**, Nutritional Assessment **Spring 2015**  
NUT 112, University of California, Davis  
Developed course material, led 2 laboratory sections of 30 students

**Graduate Student Instructor**, Community Nutrition **Winter 2015**  
NUT 118, University of California, Davis  
Developed course material, guest lectured, supported students

## PUBLICATIONS

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Megan G. Bragg, Elizabeth L. Prado, Charles D. Arnold, **Sarah J. Zyba**, Kenneth M. Maleta, Bess L. Caswell, Brian J. Bennett, Lora L. Iannotti, Chessa K. Lutter, Christine P. Stewart. Plasma choline concentration after a six-month egg intervention among 6 – 9 month old Malawian children: results from a randomized controlled trial. In preparation.

**Sarah J. Zyba**, Valerie Weinborn, Charles D. Arnold, Fanny B. Morel, Mamane Zeilani, Alyson E. Mitchell, Marjorie J. Haskell. Saccharin and resveratrol as adherence markers discriminate between daily vs. intermittent vs. non-consumption of small-quantity lipid-based nutrient supplements (SQ-LNS) among US women in a short-term supplementation study. In preparation.

Jung H. Suh, **Sarah J. Zyba**, Mark Shigenaga, Christine M. McDonald, Janet C. King. Marginal zinc deficiency alters essential fatty acid metabolism in healthy men. J Nutr 2021 Dec; nxab425. doi: [10.1093/jn/nxab425](https://doi.org/10.1093/jn/nxab425)

**Sarah J. Zyba**, Valerie Weinborn, Charles Arnold, Arlie L. Lehmkuhler, Fanny B. Morel, Mamane Zeilani, Alyson E. Mitchell, Marjorie J. Haskell. Evaluation of saccharin and resveratrol as extrinsic markers of small-quantity lipid-based nutrient supplement consumption in healthy women. Curr Dev Nutr 2021 Jul; 5(7):nzab089. doi: [10.1093/cdn/nzab089](https://doi.org/10.1093/cdn/nzab089).

Valerie Weinborn, Arlie L. Lehmkuhler, **Sarah J. Zyba**, Marjorie J. Haskell, Fanny B. Morel, Mamane Zeilani, Alyson E. Mitchell. Measurement of saccharin and trans-resveratrol metabolites in urine as adherence markers for small quantity lipid-based nutrient supplement consumption. Journal of Agricultural and Food Chemistry 2021; 69(3):1107-1114. doi: [10.1021/acs.jafc.0c06144](https://doi.org/10.1021/acs.jafc.0c06144)

Hanqi Luo, **Sarah J. Zyba**, Patrick Webb. Measuring malnutrition in all its forms: an update of the Net State of Nutrition Index to track the global burden of malnutrition at country level. *Global Food Security* 2020; 26(100453). doi: [10.1016/j.gfs.2020.100453](https://doi.org/10.1016/j.gfs.2020.100453)

**Sarah J. Zyba**, Rita Wegmuller, Leslie R. Woodhouse, Kabiru Ceesay, Andrew M. Prentice, Kenneth H. Brown, K. Ryan Wessells. Effect of exogenous phytase added to small quantity lipid-based nutrient supplements (SQ-LNS) on the fractional and total absorption of zinc from a millet-based porridge consumed with SQ-LNS in young Gambian children: a randomized controlled trial. *AJCN* 2019; 110(6):1465-1475. doi: [10.1093/ajcn/nqz205](https://doi.org/10.1093/ajcn/nqz205)

**Sarah J. Zyba**, Swapna V. Shenvi, David W. Killilea, Tai C. Holland, Elijah Kim, Adrian Moy, Barbara Sutherland, Virginia Gildengorin, Mark K. Shigenaga, Janet C. King. A moderate increase in diet zinc reduced DNA strand breaks in leukocytes and altered plasma proteins without changing plasma zinc concentrations. *AJCN* 2017; 105(2):343-351. doi: [10.3945/ajcn.116.135327](https://doi.org/10.3945/ajcn.116.135327)

## ABSTRACTS AND PRESENTATIONS

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**Sarah J. Zyba**, Valerie Weinborn, Charles D. Arnold, Fanny B. Morel, Mamane Zeilani, Alyson E. Mitchell, Marjorie J. Haskell. Urinary concentrations of saccharin and resveratrol metabolites reflect recent intake of a single serving of a small quantity lipid-based nutrient supplement in US women. *Micronutrient Forum 5<sup>th</sup> Global Conference*, Virtual, November 2020. (poster presentation)

K. Ryan Wessells, **Sarah J. Zyba**, Leslie R. Woodhouse, Kabiru Ceesay, Andrew M. Prentice, Kenneth H. Brown, Rita Wegmüller. Exogenous phytase added to lipid based nutrient supplements increases fractional and total absorption of zinc among young Gambian children: a randomized controlled trial. *American Society of Nutrition Conference*, Baltimore, MD June 2019. (oral presentation)

Tai C. Holland, **Sarah J. Burke**, David W. Killilea, Swapna V. Shenvi, Barbara Sutherland, Mark K. Shigenaga, and Janet C. King. *Ex vivo* lymphocytic zinc uptake as a potential tool to measure zinc status. *International Society for Zinc Biology Meeting*, Asilomar Pacific Grove, CA September 2014. (poster presentation)

**Sarah J. Burke**, Swapna V. Shenvi, David W. Killilea, Tai C. Holland, Barbara Sutherland, Elijah Kim, Mark K. Shigenaga, Janet C. King. Short-term low zinc intake alters DNA damage and zinc transporter expression without changing plasma zinc. *Experimental Biology*, San Diego, CA April 2014. (oral presentation)

David W. Killilea, Swapna V. Shenvi, Tai C. Holland, **Sarah J. Burke**, Mark K. Shigenaga, Barbara Sutherland, Janet C King. Zinc-metallothionein ratios reflect cellular zinc status. *Experimental Biology*, San Diego, CA. April 2012. (poster presentation)

## MEDIA COVERAGE

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Blog, IZiNCG. "[Phytase added to SQ-LNS increased zinc absorption](#)" 2020

News release, ScienceDaily "[Zinc eaten at levels found in biofortified crops reduces 'wear and tear' on DNA](#)", 2017

## PROFESSIONAL DEVELOPMENT

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<p><b>University of California Laboratory Safety Training</b>  Laboratory safety fundamentals, Safe use of biological cabinets, Biosafety level 2, Bloodborne Pathogen Awareness</p>	Current
<p><b>Training and Resources in Research Ethics Evaluation (TRREE)</b>  Good Clinical Practices Certificate</p>	Current
<p><b>Collaborative Institutional Training Initiative (CITI Program)</b>  Biomedical Researcher and staff</p>	Current