

NIH Office of Dietary Supplements 2020-2021 Seminar Series

Improving the Quality of Nutritional Biomarker Laboratory Measurements at Home and Globally

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Atlanta, GA

Wednesday, December 2, 2020 • 11 a.m. – 12 noon ET

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Dr. Christine Pfeiffer received her undergraduate and graduate degrees in Food Sciences from the University of Karlsruhe, Germany and was a postdoctoral fellow in the Department of Food Sciences and Human Nutrition at the University of Florida-Gainesville. Her research focuses on developing state-of-the-art analytical methods for measuring nutritional indicators in biological matrices and applying these methods to the National Health and Nutrition Examination Survey (NHANES) and other epidemiologic studies. She leads a group of approximately 30 scientists and coordinates laboratory-related activities for CDC's IMMPaCt (International Micronutrient Malnutrition Prevention and Control) Program. She developed a framework of laboratory harmonization for low-and-middle-income countries that relies on regional resource laboratories to improve the quality of nutritional biomarker data from micronutrient surveys.

Dr. Pfeiffer is an expert on folate methodologies, the measurement of B vitamins in NHANES, and the logistics of biomonitoring of nutritional indicators. She has influenced these research areas by publishing more than 150 peer-reviewed scientific papers and several book chapters, as well as leading the production of two National Reports on Biochemical Indicators of Diet and Nutrition in the U.S. Population – the most comprehensive assessments of nutritional status in Americans. Dr. Pfeiffer has been a member of national and international committees, such as the Micronutrient Forum Expert Panel on Folate status in women and neural tube defects risk-reduction, the WHO Expert Advisory Panel on Nutrition, and the NIH Iron Expert Panel for Biomarkers of Nutrition for Development (BOND). She has provided consultations on nutritional biomarker measurements for several national nutrition surveys, such as the UK National Diet and Health Survey, the UK Food Standards Agency, the Canadian Health Measures Survey, and the German National Nutrition Survey.

Recent Publications

1. Pfeiffer CM, Sternberg MR, Zhang M, Fazili Z, Storandt RJ, Crider KS, Yamini S, Gahche JJ, Juan WY, Wang C-Y, Potischman N, Williams J, LaVoie DJ. Folate status in the US population 20 years after the introduction of folic acid fortification. *Am J Clin Nutr.* 2019;110(5):1088-97. DOI: 10.1093/ajcn/nqz184.
2. Pfeiffer CM, Zhang M, Jabbar S. Framework for laboratory harmonization of folate measurements in low-and-middle-income countries and regions. *Ann N Y Acad Sci.* 2018;1414:96-108. DOI: 10.1111/nyas.13532.
3. Pfeiffer CM, Lacher DA, Schleicher RL, Johnson CL, Yetley EA. Challenges and lessons learned in generating and interpreting NHANES nutritional biomarker data. *Adv Nutr.* 2017;8:290–307.



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