



UNIVERSITY OF
SOUTH CAROLINA
Arnold School of Public Health
Center for Research in Nutrition & Health Disparities

Nutrition Center Newsletter: Spring 2016

Enhanced nutrition and health disparities research synergy

Rothenberg obtains NIH grant to study the impacts of gut microbiota on methylmercury exposure in children [\(Back to Top\)](#)

The National Institute of Environmental Health Sciences has awarded Assistant Professor Sarah Rothenberg (Department of Environmental Health Sciences) with an R21 grant to research methylmercury exposure through rice ingestion and offspring development in China. The study will also look at how gut microbiota metabolize methylmercury. The Arnold School's Center for Research in Nutrition and Health Disparities, where Rothenberg serves as a faculty affiliate, will provide pre- and post-award support. Methylmercury is a potent neurotoxin due to its ability to cross both blood-brain and placental barriers. About 95 percent of dietary methylmercury is absorbed into the bloodstream. It is then transported throughout the body and accumulated in tissues, including the brain, where it can lead to developmental delays.

"Gut microbes in our gastrointestinal tracts play an important role in metabolizing xenobiotics, including mercury," says Rothenberg. "However, there are a lot of gaps in our understanding."

To address this knowledge gap, Rothenberg will examine the bi-directional associations between gut microbes, dietary methylmercury intake (through rice) and the accumulation of methylmercury in tissues of humans—more specifically, children. Results from this study will clarify our understanding of the mechanisms by which gut microbes contribute

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Welcome Nutrition Center Newly Affiliated Scholar

Douglas Spencer Moore, Jr.
Associate Professor
Department of Health Promotion, Education, and Behavior
Arnold School of Public Health

The 2015-2020 Dietary Guidelines for Americans

to variability in children's methylmercury metabolism and exposure, potentially impacting their development. "This research is part of the emerging field relating gut microbiota to human health," Rothenberg says. "We hope these results will help clarify how gut microbiota metabolize methylmercury and eventually lead to nutritional therapies to reduce exposure to this potent neurotoxin."



Sarah E. Rothenberg
Assistant Professor
Department of Environmental Health Sciences

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Affiliated Scholars Highlighted [\(Back to Top\)](#)

Brie Turner-McGrievy, health promotion, education and behavior, authored "The interconnectedness of diet choice and distance running: results of the research understanding the nutrition of endurance runners (RUNNER) Study" in the International Journal of Sport Nutrition and Exercise Metabolism.

Tushar Trivedi, doctoral student, Jihong Liu and Anwar Merchant, epidemiology and biostatistics, Jan Probst, health services policy and management, Sonya Jones, health

HHS and USDA Release New Dietary Guidelines to Encourage Healthy Eating Patterns to Prevent Chronic Diseases

Read more:
<http://content.govdelivery.com/accounts/USDAO/bulletins/12eb522>

Recent changes to NIH applications

There are two changes emerging in the formats of NIH applications, a Phase-1 (for apps after Jan 25), and a later Phase-2 (for those submitted after May 25). They are not cumbersome, but must be followed otherwise proposals can be quickly (administratively) rejected. Be sure to read and digest if you're going after NIH funding.

The changes are summarized at:
<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-16-004.html>

Upcoming Events

6th Annual Nutrition Symposium
Keynote Speaker: Paul Cienfuegos
Healthy Eating in Context: The realities of Dietary Guidelines
Friday, March 18, 2016
9:00 a.m to 1:30 p.m
Carolina Alumni Center

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promotion, education and behavior, and Amy Brock Martin, S.C. Rural Health Research Center, authored "Obesity and obesity-related behaviors among rural and urban adults in the USA" in Rural Remote Health.

Xuemei Sui and Steven Blair, exercise science, James Hébert, Linda Hazlett and Bo Cai, epidemiology and biostatistics, authored "Association of cardiorespiratory fitness with coronary heart disease in asymptomatic men" in Mayo Clinic Proceedings.

Edward Frongillo, health promotion, education, and behavior, gave an invited talk on monitoring and evaluation of programs to improve complementary feeding of infants and young children at a UNICEF-organized global meeting in Mumbai, India, the first global meeting on complementary feeding in 20 years.

Robert Weaver, Michael Beets, Brent Hutto and Russ Pate, exercise science, Ruth Saunders, Justin Moore and Brie Turner-McGrievy, health promotion, education, and behavior, authored "Making healthy eating and physical activity policy practice: process evaluation of a group randomized controlled intervention in afterschool programs" in Health Education Research.

Susan Steck, Mark Guinter (graduate student) and Jiani Zheng (graduate student), epidemiology and biostatistics, authored "Index-based dietary patterns and colorectal cancer risk: a systematic review" in Advances in Nutrition.

Nitin Shivappa, Susan Steck, James Hussey and James Hébert, epidemiology and biostatistics and Cancer Prevention and Control Program, authored "Inflammatory potential of diet and all-cause, cardiovascular, and cancer mortality in National Health and Nutrition Examination Survey III Study" in the European Journal of Nutrition.

**FoodShare Columbia: A [\(Back to Top\)](#)
Case Study of a Produce
Box Program with a SNAP
Healthy Incentives
Component.**

FoodShare Columbia uses a partnership and community-based approach to ensure "Good

Healthy Food for All” in an area of Columbia, South Carolina that lacks healthy food retail options. Every two weeks, community members are able to purchase a produce box (i.e., Fresh Food Boxes) and participate in food demonstration and enrichment activities at a city parks and recreation department community center. Since the program’s launch in April 2015, over 1700 Fresh Food Boxes have been purchased by community members; 45% have been purchased with Supplemental Nutrition Assistance Program (SNAP) dollars. FoodShare Columbia is a replicable model for effectively increasing access to produce in low-income communities. For additional information on the program description, lessons learned, and recommendations for program replication, click read more below.

Spread the Word!

Cost: Each Fresh Food Box costs \$20. SNAP participant can use their EBT SNAP card to make a purchase(s), and receive an instant \$10 Healthy Bucks credit. CASH and SNAP EBT is accepted.

How to Order:

Simply place your order in person at the Bellfield Cultural Arts Center (the former Sarah Nance Elementary School in Booker Washington Heights off Beltline) located at 2611 Grant Street. Contact Information: 803-255-8161. Fresh Food Boxes may be ordered twice per month Monday through Friday between 10 AM to 6 PM. Boxes must be preordered in advance. See link below for Pick-Up Schedule.

<http://www.sc.edu/nutrition/doc/Foodshare.pdf>

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