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Register now for the 23rd Annual NORCH Symposium

The Neurobiology of Eating Behavior in Obesity: Mechanisms and Therapeutic Targets

Wednesday, June 8, 2022 8:30am-4:30pm EST, Virtual This event is free and open to the public.





The <u>23rd Annual Harvard Nutrition and Obesity Symposium</u> will explore the complex neurobiological pathways governing eating behavior in obesity and targeted interventions to modulate these pathways. We have an excellent lineup of speakers, who will present new work on a wide range of topics including gut-brain communication, surgical and non-surgical interventions, appetite regulation, and obesity in an addiction framework.

The full list of speakers is now available to view on the <u>event webpage</u>. <u>Click here to download the official event flyer.</u>

Click here to register now!



Announcing the 2nd NORCH Mentoring for Diversity and Inclusion Award

The NORCH has selected Fatima Cody Stanford, MD, MPH, MPA, MBA, FAAP, FACP, FAHA, FAMWA, FTOS to receive the <u>2021 NORCH Mentoring for Diversity</u> <u>and Inclusion Award.</u> This award recognizes a faculty member who provides meaningful, sustained mentorship to young investigators from underrepresented in medicine (URM) backgrounds in the fields of nutrition, obesity, and metabolism. Congratulations, Dr. Stanford!

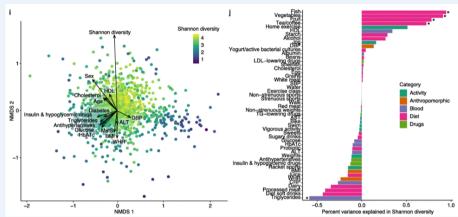
Associate Member Seminar Series

Our team at the NORCH is excited to announce a new seminar series beginning this month for <u>NORCH Associate Members</u> to share their work with peers and gain career insight from established investigators. The seminars will take place every second Thursday of the month.

Recent Publications

Framingham Heart Study Analysis of Associations between Microbiome, Nutrition, Activity, and Metabolism

To explore relationships between the gut microbiome and cardiometabolic traits in a richly phenotyped sample, NORCH investigator Ramnik Xavier, MD, PhD, and colleagues performed 16S rRNA gene sequencing on stool from 1423 individuals in 3 Framingham Heart Study cohorts (Generation 3, OMNI2, and New Offspring Spouse). Non-metric multidimensional scaling was used to investigate associations between microbiome variation and phenotypic traits, as shown in the Figure (i, left).



From Walker et al., Genome Med 13, 188 (2021), Figure 2 I-J. Licensed under Creative Commons Attribution 4.0 International License.

Shannon diversity index showed the strongest correlation with microbial composition, with other related variables including sex, age, waist-to-hip ratio, BMI, use of antihypertensives, insulin, hypoglycemic drugs, and serum measures of glycemia, lipids, and alanine aminotransferase. Associations between Shannon diversity index and lifestyle, nutrition, and phenotypic traits

were also assessed (Figure j, right). Nutritional factors showed the strongest contributions to microbiome diversity, with consumption of fish, vegetables, fruit, tea and coffee within the past week increasing microbiome diversity. Please see the publication for multiple other interesting analyses! These results support hypothesis generation related to the interconnections between microbiome, lifestyle and nutrition, metabolism, and cardiovascular disease.

Walker RL, Vlamakis H, Lee JWJ, Besse LA, Xanthakis V, Vasan RS, Shaw SY, **Xavier RJ.** Population study of the gut microbiome: associations with diet, lifestyle, and cardiometabolic disease. Genome Med. 2021 Dec 17;13(1):188. PMID: 34915914

Recent Highlights from NORCH Investigators

Yang J, Wang M, **Tobias DK**, Rich-Edwards JW, Darling AM, Abioye AI, Noor RA, Madzorera I, **Fawzi WW**. Dietary diversity and diet quality with gestational weight gain and adverse birth outcomes, results from a prospective pregnancy cohort study in urban Tanzania. Matern Child Nutr. 2021 Dec 14:e13300. PMID: 34908233

Tao T, Kobleski MM, Saini V, **Demay MB**. Adipose-specific VDR deletion leads to Hepatic steatosis in female mice fed a low fat diet. Endocrinology. 2021 Dec 8:bqab249. PMID: <u>34878523</u>

Cruz DE, Tahir UA, Hu J, Ngo D, Chen ZZ, Robbins JM, Katz D, Balasubramanian R, Peterson B, Deng S, Benson MD, Shi X, Dailey L, Gao Y, Correa A, Wang TJ, **Clish CB**, Rexrode KM, Wilson JG, **Gerszten RE**. Metabolomic Analysis of Coronary Heart Disease in an African American Cohort From the Jackson Heart Study. JAMA Cardiol. 2021 Dec 1:e214925. PMID: 34851361

Dreyfuss JM, Yuchi Y, Dong X, Efthymiou V, Pan H, Simonson DC, Vernon A, Halperin F, Aryal P, Konkar A, Sebastian Y, Higgs BW, Grimsby J, Rondinone CM, Kasif S, **Kahn BB**, Foster K, Seeley R, **Goldfine A**, Djordjilović V, **Patti ME**. High-throughput mediation analysis of human proteome and metabolome identifies mediators of post-bariatric surgical diabetes control.Nat Commun. 2021 Nov 29;12(1):6951. PMID: <u>34845204</u>

Our work as a Center is measured in part by the contributions we make to published science. Please cite the NIH Grant **P30 DK040561** in all publications that result from the use of NORCH services or resources.



Featuring: Jessica Fanzo, PhD

Dr. Fanzo is the Bloomberg Distinguished Professor of Global Food Policy and Ethics at the Berman Institute of Bioethics, the Bloomberg School of Public Health, and the Nitze School of Advanced International Studies at Johns Hopkins. She was the Keynote speaker for our 2021 NORCH Symposium: Global Food Systems and Sustainable Nutrition in the 21st Century. Watch her talk here >

Tell us a little bit about your background:

I am a nutritionist who focuses on issues of agriculture, climate and environment and diets. I am currently the Bloomberg Distinguished Professor of Global Food Policy and Ethics at Johns Hopkins University. Before that, I held positions in both

academia and in international development agencies including Columbia University, the Earth Institute, Food and Agriculture Organization of the United Nations, the UN World Food Programme, Bioversity International, and the Millennium Development Goal Centre at the World Agroforestry Center in Kenya.

What are your current research interests?

My research interests focus on the impact of transitioning food systems on healthy, environmentally sustainable, and equitable diets, and more broadly on the livelihoods of people living in resource-constrained places.

Can you summarize what you see as the key takeaways from our June 2021 Symposium?

That food is a centerpiece of bridging the challenges of human health and planetary health and improving food systems is essential if we want to address both climate change and nutrition outcomes for populations. However, transforming food systems in positive directions is fraught with political and social challenges that will need multi-disciplinary research collaborations to further evidence on how to make that transformation.

What was the value of this event to the global nutrition/food systems research community?

The event brought the latest evidence across different disciplines and experts to the forefront and showed the incredible progress the research community has made in understanding and navigating complex food systems. It would be fantastic to have an annual conference on food systems which doesn't really exist.

How did this event relate to the United Nations Food Systems Summit that took place in September?

The timing was perfect to highlight the importance of science happening across great institutions around the world. In 2021, there were some critical global moments where food systems were discussed and debated -- the United Nations Food Systems Summit (UNFSS), the UN Climate Change Conference (COP26), and the Nutrition for Growth Summit. This event highlighted data and evidence that the scientific community is generating to ensure that these events such as the UNFSS is not just a moment but one that provides the scientific grounding for impactful change.

How do our current food systems need to evolve to alleviate the double burden of malnutrition?

Healthy diets need to be physically, economically, and socially available for everyone. We need much more equity across the entire food system. The kinds of diets that are available to us are essentially killing us. Diets are now one of the top risk factors of morbidity and mortality. That is incredible! Ultra-processed foods high in added sugars, sodium and unhealthy fats are tasty, affordable, and cheap, and are significant contributors to a range of risk factors that are detrimental to our health.

There are so many ways to tackle the "access" issue – some harder, some easier. Changing the types of foods we grow and reorienting subsidy policies, improving food supply chain infrastructure those nutritious foods to the last mile to places where these foods are less available, ensuring nutritious foods are subsidized and unhealthy foods are taxed, redesigning the choice architecture of food environments, mandating reformulation and labeling of foods, and incentivizing private sector to be innovative in ensuring nutritious foods are tasty and convenient with more sustainable packaging options.

This will take more political action by governments including policy changes and regulation, and more cooperation from the food industry to ensure public health and the climate are priorities alongside profit. The challenge is massive, but solutions are there for the taking.

Local Events

Monday Nutrition Seminar Series

Dept of Nutrition, Harvard School of Public Health

Monday, Jan 24, 2022, 1-2pm, Virtual Augustin Scalbert, PhD, *Scientist*, International Agency for Research on Cancer (Nutrition and Metabolism Branch), World Health Organization

Monday, Jan 31, 2022, 1-2pm, Virtual Zachary Ward, PhD, *Research Scientist*, Center for Health Decision Science, Harvard School of Public Health

<u>Click here</u> for more information. This series occurs on a weekly basis.

Adipose Seminar Series

Boston Nutrition Obesity Research Center (BNORC)

Tuesday, Jan 11, 2022, 10-11am, Virtual Benjamin T. Bikman, PhD, *Associate Professor*, Department of Cell Biology and Physiology, Brigham Young University

Tuesday, Jan 25, 2022, 10-11am, Virtual Jean E. Schaffer, M.D., Senior Investigator and Associate Research Director, Joslin Diabetes Center, Professor of Medicine, Harvard Medical School

<u>Click here</u> for more information. This series occurs every two weeks.

Longwood Nutrition Seminar

Division of Nutrition at Harvard Medical School

Tuesday, Feb 1, 2022, 12-1pm, Virtual
"Intestinal Transplant Case Study" April E. Mendoza,
MD, MPH, Assistant Professor of Surgery,
Massachusetts General Hospital

<u>Click here</u> for more information. This series occurs on a monthly basis.

National NORC Events

UNC Nutrition Seminar

UNC Nutrition Obesity Research Center

Friday, Feb 4, 2022, 2-3pm EST Lamis Jomaa, PhD, Assistant Professor of Nutrition and Food Sciences, American University of Beirut

Friday, Feb 25, 2022 2-3pm EST Kymberly Gowdy, MS, PhD, *Associate Professor*, Division of Pulmonary, Critical Care and Sleep Medicine, Ohio State University College of Medicine

<u>Register</u> for Zoom details or <u>click here</u> for more information. All are welcome to attend.

Other Opportunities

Early Career / Diversity Supplement Opportunity in Food Access and Health Equity

Dr. Alice Ammerman (UNC Gillings School of Global Public Health) has an opportunity to submit a diversity supplement proposal for a new 3-year NIMHD project: "Good Bowls: Empowering Communities to Achieve Good Food Access and Health Equity."

Click here for more information.

New NINR Funding Opportunity

The NINR has released the following Notice of Intent to Publish a Funding Opportunity, NOT-NR-22-004: Evaluating the Impact of COVID-19 Pandemic-related Food and Housing Policies and Programs on Health Outcomes in Health Disparity Populations (R01 Clinical Trial Optional)

Click here for more information.

Contact Us

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