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Core Office Hours

Our Core Directors will be holding office hours to answer questions about how to best utilize Core services and equipment for nutrition- and obesity-related research projects. Visit our [website](#) for more information on our three Biomedical Cores.

Genomics and Cell Biology

Dr. Ruslan Sadreyev and Dr. Hai Ning Shi
1/26 10:30am

Metabolic Imaging

Dr. Martin Torriani
2/4 10:00am

Metabolic Phenotyping

Dr. Alex Soukas
TBA

Research Supplement Funding to Promote Diversity

The Center is seeking to match eligible scholars from backgrounds underrepresented in academia (URiA) to research mentors at Harvard and our affiliate organizations to apply for NIH-funded [Research Supplements to Promote Diversity in Health-Related Research](#). We welcome applications from eligible undergraduates, post-baccalaureates, graduate students, and faculty across the country who are seeking a career in health-related research.

To find out more about this program and to indicate your interest in being matched with a Harvard principal investigator, please [visit our website](#). Eligible and interested investigators can sign up [HERE](#) to be connected with mentees.

Please direct any questions to our team at HarvardNORC@mgh.harvard.edu.

Dr. Fatima Stanford Named "Clinician of the Year" by The Obesity Society

NORCH Director of Diversity & Inclusion Initiatives and Executive Committee Member Fatima Stanford, MD, MPH, MPA, FAAP, FACP, FAHA, FTOS, has been named the 2020 Clinician of the Year by The Obesity Society. This award, founded in 2015 by the Clinical Management of Obesity Section of TOS, recognizes one clinician annually for "significant contributions for the evidenced-based treatment of obesity."

Congratulations to Dr. Stanford on this incredible achievement!



Recent Publication Highlights from the NORCH Research Base

Duggan CP, Kurpad A, **Stanford FC**, Sunguya B, Wells JC. Race, ethnicity, and racism in the nutrition literature: an update for 2020. *Am J Clin Nutr.* 2020 Dec 10;112(6):1409-1414. doi: 10.1093/ajcn/nqaa341. PMID: [33274358](#)

Plessow F, Marengi DA, Perry SK, **Lawson EA**. Oxytocin Administration Increases Proactive Control in Men with Overweight or Obesity: A Randomized, Double-Blind, Placebo-Controlled Crossover Study. *Obesity (Silver Spring).* 2020 Nov 22. doi: 10.1002/oby.23010. Online ahead of print. PMID: [33225615](#)

Hu J, Aris IM, Lin PD, Rifas-Shiman SL, Perng W, Woo Baidal JA, Wen D, **Oken E**. Longitudinal associations of modifiable risk factors in the first 1000 days with weight status and metabolic risk in early adolescence. *Am J Clin Nutr.* 2020 Nov 12:nqaa297. doi: 10.1093/ajcn/nqaa297. Online ahead of print. PMID: [33184628](#)

Iyengar S, Côté HCF, Fitch KV, **Torriani M**, Feldpausch M, **Srinivasa S**. Relationship of Telomere Length to Fat Redistribution in HIV. *Open Forum Infect Dis.* 2020 Oct 27;7(12):ofaa523. doi: 10.1093/ofid/ofaa523. eCollection 2020 Dec. PMID: [3335933](#)

Chandler PD, Chen WY, Ajala ON, Hazra A, Cook N, Bubes V, Lee IM, Giovannucci EL, **Willett W**, **Buring JE**, **Manson JE**. Effect of Vitamin D3 Supplements on Development of Advanced Cancer: A Secondary Analysis of the VITAL Randomized Clinical Trial. *VITAL Research Group. JAMA Netw Open.* 2020 Nov 2;3(11):e2025850. doi: 10.1001/jamanetworkopen.2020.25850. PMID: [33206192](#)

Edlow AG, Li JZ, Collier AY, Atyeo C, James KE, Boatn AA, Gray KJ, Bordt EA, Shook LL, Yonker LM, **Fasano A**, Diouf K, Croul N, Devane S, Yockey LJ, Lima R, Shui J, Matute JD, Lerou PH, Akinwunmi BO, Schmidt A, Feldman J, Hauser BM, Caradonna TM, De la Flor D, D'Avino P, Regan J, Corry H, Coxen K, Fajnzylber J, Pepin D, Seaman MS, Barouch DH, Walker BD, Yu XG, Kaimal AJ, Roberts DJ, Alter G. Assessment of Maternal and Neonatal SARS-CoV-2 Viral Load, Transplacental Antibody Transfer, and Placental Pathology in Pregnancies During the COVID-19 Pandemic. *JAMA Netw Open.* 2020 Dec 1;3(12):e2030455. doi: 10.1001/jamanetworkopen.2020.30455. PMID: [33351086](#)

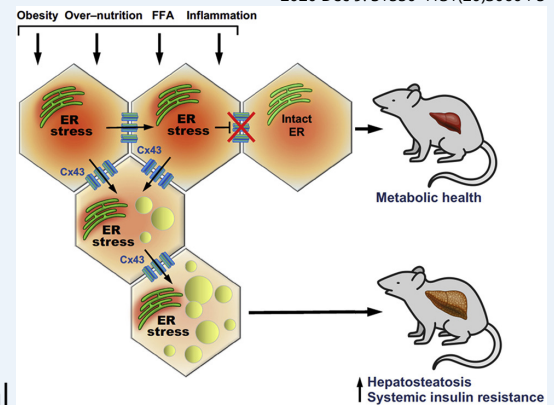
Our work as a Center is measured in part by the contributions we make to published science. Please cite the NIH Grant **P30 DK040561** in all publications that results from the use of NORC-H services or resources.

Publication Spotlight: Gap Junctions Allow Intercellular Transmission of Hepatic ER Stress in Obesity

In states of obesity, endoplasmic reticulum (ER) stress plays a key role in the cascade through which cellular stress leads to insulin resistance and diabetes. Gap junctions, formed by paired connexons, allow the exchange of metabolites and signaling molecules between cells, providing a common mode of intracellular communication. Of human connexon genes, connexin 43 (Cx43) is the most ubiquitous.

Image originally published in *Cell Metab.* 2020 Dec 9; S1550-4131(20)30604-5

In this work, NORCH member Gokhan Hotamisligil, MD, PhD, and previous NORCH P&F Awardee Amir Tirosh, MD, PhD, demonstrate that Cx43 plays a critical



role in “spreading” ER stress between hepatocytes. In C57BL/6 mice exposed to high fat diet (HFD) and resultant ER stress, increased hepatic Cx43 expression was an early event, observed 3 days after initial HFD exposure. Cell culture experiments demonstrated that ER stress upregulates Cx43, which then mediates cell-cell communication that disseminates ER stress from a “stressed” cell to adjacent cells. Finally, mice with liver-specific deletion of Cx43 had reduced hepatocyte-hepatocyte coupling and were protected against the consequences of diet-induced ER stress, with less severe steatohepatitis and better insulin sensitivity following exposure to HFD compared with controls. These data demonstrate that Cx43-mediated intracellular communication in the liver propagates ER stress signals and may play an important mechanistic role in the development of steatohepatitis.

Tirosh A, Tuncman G, Calay ES, Rathaus M, Ron I, Tirosh A, Yalcin A, Lee YG, Livne R, Ron S, Minsky N, Arruda AP, **Hotamisligil GS**. Intercellular Transmission of Hepatic ER Stress in Obesity Disrupts Systemic Metabolism. *Cell Metab.* 2020 Dec 9;S1550-4131(20)30604-5. doi: 10.1016/j.cmet.2020.11.009. Online ahead of print. PMID: [33340456](#)



Featuring: Josiemer Mattei, PhD, MPH

Dr. Mattei is the Donald and Sue Pritzker Associate Professor of Nutrition at the Department of Nutrition in the Harvard T.H. Chan School of Public Health. She is also the 2020 recipient of the [NORCH Mentoring for Inclusion and Diversity Award](#).

Tell us a little bit about your background.

Born and raised in Puerto Rico amid a rapid rise in chronic diseases, I was stunned by the lack of nutrition and health information that could help us curb those trends and that considered the unique experiences of our culture. This inspired me to study the connections between nutrition and health in minority and underserved populations, and

create and deliver disease-prevention strategies tailored to them. This continues to be my motivation and goal.

What has been the most exciting moment in your career?

In 2018, we started the PROSPECT cohort in Puerto Rico to study risk factors of chronic diseases, one of the few studies of this kind to have been implemented in the island. For years, we envisioned and planned this project, and it finally got off the ground right after Hurricane Maria devastated the island. It was founded through pure hard work and determination of our remarkable partners in the island and the U.S. The project has been successful, and will directly impact research infrastructure, scientific capacity, and public health initiatives to improve the health of Puerto Ricans, and inform similar studies in other vulnerable populations.

If you could design any research study at all, with limitless budget, what would it be?

I ask this same question to incoming students and postdocs to gauge where their true passions are! I would use the funds to implement a practical, evidence-based, sustainable program that alleviates food insecurity and improves dietary intake among vulnerable communities using healthy, culturally-appropriate, and environmentally-safe foods (like beans, root vegetables, and home-grown produce). This has high potential for improving physical and mental health, which of course we would measure for research purposes using the limitless budget!

How have NORCH and/or NORCH Core Services helped you?

NORCH's Diversity and Inclusion Initiatives provide support and career advancement to underrepresented minority scholars in obesity and nutrition research. This support is essential, and needed more than ever, to build a diverse and robust scientific workforce.

If you could change one thing about the way we conduct or communicate research, what would it be?

Communicating research is an essential skill and a responsibility for researchers. It is not only about writing a scientific article, but also about disseminating the results and the implications of our work to the proper stakeholders: scientists, public health officials, policy-makers, and most importantly, the communities served. I would promote training programs and partnerships with Communications Offices to help researchers widely disseminate their work in a clear, concise, truthful, and prompt manner.

What is your favorite quote or saying?

My career is centered on two quotes. First, "If you're going through hell, keep going", by Winston Churchill. Academia and research are challenging, even more so for women and underrepresented minorities. When funding is short, work piles on, results are not moving as fast, and roadblocks pop up everywhere (pandemics!), to "keep going" is the only way to get out of the distress and back on the right path. Secondly, "People will forget what you said, people will forget what you did, but people will never forget how you made them feel", by Maya Angelou. Research is a collaborative field, and building strong connections and emotional intelligence is paramount. I strive to make others feel welcome, respected, and appreciated... because they are!

Local Events

Adipose Seminar Series

Boston Nutrition Obesity Research Center (BNORC)

Tuesday, January 26, 10am, Virtual

"Adipose tissue resident Tregs: friend or foe in obesity?" Louise D'Cruz, PhD., *Assistant Professor*, Department of Immunology, University of Pittsburgh

Tuesday, February 23, 10am, Virtual

Saverio Cinti, M.D., *Professor of Anatomy, Director Center of Obesity*, Marche Polytechnic University; *Affiliated Professor*, University of Copenhagen

[Click here](#) for series info and registration.

Tufts Research and Data Symposium for Food and Nutrition – Abstract Submission Open

The Tufts Research and Data Symposium for Food and Nutrition
March 1-4, Details TBA

This event will provide opportunities for graduate students to present their own research, network, and develop key data analytics skills. The workshop will feature keynote speakers, panels, and workshops.

The abstract deadline is January 8. Abstracts are accepted from graduate students, postdoctoral scholars, and early career researchers. [Click here](#) to learn more.

22nd Annual Harvard Nutrition Obesity Symposium: Global Food Systems and Sustainable Nutrition in the 21st Century

Nutrition Obesity Research Center at Harvard (NORCH)

Tuesday, June 15, 8am-5:30pm, Virtual

[Add to calendar >](#) [Download program flyer >](#)

We have an outstanding lineup of speakers who are experts in the fields of public health, global food systems, food inequity, and sustainable nutrition. Additional event info and speaker information can be found [here](#). Fill out the interest form linked [here](#) to be notified when registration opens.

National NORC Events

Precision Nutrition: Research Gaps and Opportunities Workshop sponsored by NIH

NIDDK and NHLBI

January 11-12, Virtual

To encourage attendance of next-generation researchers in precision nutrition and to extend the breadth of information available to the scientific community, a poster session will be held in conjunction with the workshop presentations. These will be live on the meeting website for one year.

[Click here](#) for event and registration information.

UNC NORC P&F Symposium: "From Pilot Data to Federal Funding: Lessons from P&F Program Award Winners"

UNC Nutrition Obesity Research Center

Thursday, March 11, 2-4pm

The symposium will feature keynote speaker and P&F awardee Dr. Penny Gordon-Larsen and presentations from P&F award winners Dr. Kyle S. Burger, Dr. Rachel W. Goode, Dr. Abbie Smith-Ryan, and Dr. Maya Styner. Speakers will discuss their current research, their experiences as a P&F awardee, and their transition from gathering pilot data to securing federal funding.

[Click here](#) for event and registration information.

Save the Date: Virtual Short Course on Nutrigenetics, Nutrigenomics and Precision Nutrition

UNC Nutrition Research Institute and UNC NORC

May 19-20, 26-27 & June 2-3, 2021, Virtual

Registration opens January 15, 2021

[Click here](#) for more information.

Contact Us

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