

NUTRI NEWS

The Department of Nutrition

August, 2022

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DR CINDY LEUNG JOINS DEPARTMENT AS ASSISTANT PROFESSOR OF PUBLIC HEALTH NUTRITION



Dr Cindy Leung will be joining the Department of Nutrition in the role of Assistant Professor of Public Health Nutrition on September 1st. Dr Leung is currently the John G. Searle Assistant Professor of Nutritional Sciences at the University of Michigan. In 2012, she received her ScD in Nutrition and Epidemiology from the Harvard T.H. Chan School of Public Health. She then completed postdoctoral training in health psychology and health disparities at the University of California San Francisco.

Cindy's research focuses on how food insecurity, participation in federal food programs, and other contextual factors influence diet and health disparities in vulnerable populations. The goals of her work include instilling a passion to promote nutrition and health equity among vulnerable populations through research and practice. Cindy will be a major asset to our vibrant department.

NEWS IN THE DEPARTMENT

HONORS AND AWARDS

Sophia Hua, Postdoctoral Research Fellow, was selected as a Lead Pedagogy Fellow this year in order to continue the curriculum-based projects that were started this past year. **Meg Salvia**, student, was selected as the Pedagogy Fellow for our department this year. Meg will work under Sophia's guidance and with **Stefanie Dean** during the academic year to complete current projects and to initiate new ones. Meg is available to assist faculty with pedagogy questions or support.

Dr Marta Guasch-Ferre, Senior Research Scientist, has received the Harvard Chan School Research Scientist Association Award. The award provides funding to cover travel and research expenses.

Meghan Zimmer, a first-year PhD student in Public Health Nutrition, has recently received a **Special Service Recognition Award from the National Institutes of Health Epidemiology and Genomics Research Program** for enhancements to the Healthy Eating Index, including 1) the development and validation of the new Healthy Eating Index-Toddlers and 2) coordinating the design and user-testing of a new Personalized Healthy Eating Index Nutrition Report. During her time in the PHS program, Meghan hopes to use these new tools to better understand how federal child nutrition programs influence young children's diet quality. Her advisor is **Dr Erica Kenney**, Assistant Professor of Public Health Nutrition.

GRANTS

The Nurses' Health Study II has received a perfect score on its grant renewal application from the NIH! Although this doesn't guarantee funding, it does put the cohort study in a very good position. **Co-PI Dr Walter Willett**, Professor of Epidemiology and Nutrition, and **Director Dr Heather Eliassen**, Professor of Nutrition and Epidemiology, would like to thank the many people who worked on the proposal, and the research itself that was the reason for the outstanding score.

The Nurses' Health Studies are among the largest prospective investigations into the risk factors for major chronic diseases in women. Starting with the original Nurses' Health Study in 1976, the studies are now in their third generation. The Nurses' Health Study II began in 1989 with the enrollment of 116,000 women, and is the largest cohort study that began in early adult life. The [Nurses' Health Study 3 is still enrolling male and female nurses \(www.nhs3.org\)](http://www.nhs3.org).

Due to their unique strengths, including regular follow-up of study participants since 1976 and repeated assessment of health and lifestyle factors, the studies have played an instrumental role in shaping public health recommendations regarding diet, physical activity, and other lifestyle factors. Also, the studies' investigators are leaders in developing and evaluating questionnaire-based methods to assess a variety of factors, such as diet, physical activity, and adiposity.

To learn more: <https://nurseshealthstudy.org/>

PUBLICATIONS

Dr Sheila Isanaka, Associate Professor of Nutrition, and colleagues have published the following paper. The paper is interesting as it's an example of their translational work that aims to extend traditional clinical nutrition trials results with cost effectiveness analyses to better inform decision making for policy and programs.

The paper was also done in collaboration with the HSPH Center for Decision Analysis (Associate Professor **Ankur Pandya** is the senior author).

Isanaka S, Tang K, Berthe F, Grais RF, Pandya A. Cost-effectiveness of routine versus indicated antibiotic therapy in the management of severe wasting in children. *Cost Eff Resour Alloc* 2022;**20**(1):38 doi: 10.1186/s12962-022-00374-z[published Online First: Epub Date].

Dr Kazuko Yoshizawa, Visiting Scientist, and colleagues have published the following paper:

Kazuko Yoshizawa, Laila Al-Shaar, Walter Willetta, Reproducibility and validity of a food frequency questionnaire to measure the consumption of β -carotene, β -cryptoxanthin, folate, vitamin D, EPA, and DHA, *Virtual Cardiology* 2022
<https://www.globalscientificforum.com/conferences/cardiology-cardiovascular-medicine>

Dr Danielle Haslam, Research Fellow, and colleagues have published the following paper:

Haslam DE, Chasman DI, Peloso GM, Herman MA, Dupuis J, Lichtenstein AH, Smith CE, Ridker PM, Jacques PF, Mora S, McKeown NM. Sugar-sweetened Beverage Consumption and Plasma Lipoprotein Cholesterol, Apolipoprotein, and Lipoprotein Particle Size Concentrations in U.S. Adults. *J Nutr.* 2022 Aug 2:nxac166. doi: 10.1093/jn/nxac166. Epub ahead of print. PMID: 35918259.

DISSERTATION DEFENSES

Sharan Rai, PhD student in Population Health Sciences, successfully defended her dissertation titled "Plant-based Diets, Lignan Intake, Weight Change and the Risk of Gout" on August 11th at 11 am.

Rui Song, PhD student in Population Health Sciences and Nutrition, successfully defended her dissertation titled "Diet, Lifestyle, and Cancer: From Prevention to Survival" on August 25th at 1 pm.

MONDAY NUTRITION SEMINARS

The Department of Nutrition holds its weekly **Monday Nutrition Seminar Series** every Monday throughout the academic year. The talks are varied, but they highlight the many different aspects of cutting-edge research that is currently being conducted in the fields of nutrition, planetary nutrition, public health nutrition, and global public health. These seminars are held from **1:00-1:50 pm** and are free and open to the public. Because of COVID-19, most of the seminars have been presented via Zoom since March of 2020. Beginning this fall, our seminars will be in more of a hybrid mix, with some in-person and others still virtual. The in-person seminars will also be on Zoom for those unable to attend. During the fall semester, live seminars will be held in FXB G-13. Live spring semesters will be in Kresge 502, as they were in past years. A zoom link for viewing will be available one week prior to each seminar.

Our September speakers will be:

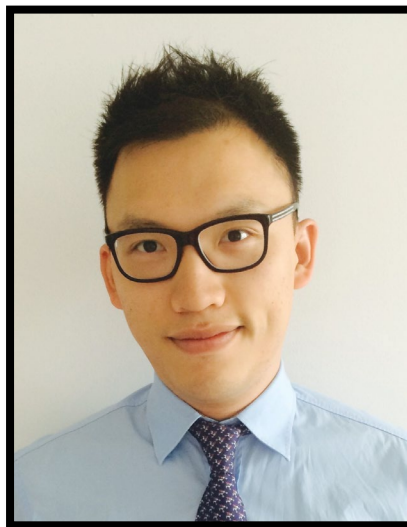
Sept 5 **LABOR DAY**

Sept 12 **Dr Chih-Hao Lee**, Professor of Molecular Metabolism, HSPH -
"Immunoregulatory mechanisms in fat cell development and function" – **hybrid**

Sept 19 **Sara Bleich, PhD**, Director of Nutrition Security and Health Equity in the Food and Nutrition Service at the U.S. Department of Agriculture (USDA) – "USDA's Actions on Nutrition Security: The Role of Public Health Nutrition" - **hybrid**

Sept 26 **Dr Cindy Leung**, Assistant Professor, Department of Nutrition – TBD - **hybrid**

NEW FACES IN THE DEPARTMENT



Li Yi, Ph.D.

Postdoctoral Research Fellow

Dr Yi is a postdoctoral research fellow working with **Drs Peter James, Jaime Hart, and Jorge Chavarro** on analyses utilizing the rich smartphone data being collected in the Nurses' Health Studies 3 and Growing Up Today Study. Li's research scope lies at the intersection of public health, spatial sciences, and urban planning, focusing on integrating wearable devices, smartphone sensors, ecological momentary assessment applications, and Geographic Information Systems (GIS) in examining the impact of the built, natural, and food environment features and characteristics on physical activity, dietary intakes, and chronic disease outcomes. He received his Master's in Urban Planning and Spatial Analysis from the University of Pennsylvania and recently earned his Ph.D. in Population, Health and Place from the University of Southern California. In his spare time, Li loves all sorts of outdoor activities, such as hiking and outdoor running.

RESEARCH NEWS FROM THE DEPARTMENT

POSTDOC ANDREA GLENN DISCUSSES HEALTH RISKS OF EATING ULTRA-PROCESSED FOODS



Photo: Atlas Biomed

Considerable research has shown that ultra-processed foods are linked to numerous health problems and even premature death. Eating them on a regular basis increases the risk of chronic diseases such as CVD, obesity, type 2 diabetes, dementia, and certain cancers.

What are ultra-processed foods? They are industrial foods made almost entirely of substances extracted from foods like oils, fats, sugars, starches, and proteins, or synthesized in labs and factories with few, if any, ingredients that come directly from natural plant or animal foods.

Andrea Glenn, PhD, RD, postdoctoral research fellow in nutrition states in an interview with *Everyday Health*, “Food manufacturers are not required to label if food is ultra-processed, and anything boxed, canned or frozen does not automatically mean they are ultra-processed”. In fact, she adds “There are lots of great options that fall into these categories — like canned or frozen fruits and vegetables, and boxed whole-grain pasta, for example”.

Glenn explains that “The health risks of these [ultra-processed] foods are likely related to the specific processes of how these foods are made, the ingredients they contain, and the displacement of healthier unprocessed or minimally processed foods”.

Ultra-processed foods are typically prepackaged products, and they often contain lots of sodium, added sugars, and saturated fats. “Focusing on these items is a good, if imperfect, way to identify ultra-processed foods,” Glenn says. According to the US Dietary Guidelines, adults should aim to get less than 10 percent of their daily calories from added sugars and saturated fats—or no more than 200 calories out of a 2,000 calorie daily diet and limit daily sodium intake to less than 2,300 milligrams.

“Consumers can examine the label and check out the ingredient list to get a sense if a product is ultra-processed or not,” Glenn says. “Ingredients are listed by weight in the ingredient list, so if you see a lot of ingredients you typically would not use in the kitchen at the beginning of the list then the food is considered ultra-processed.”

For example, “Look for words like: isolates, [high-fructose corn syrup](#), maltodextrin, or hydrogenated oils, near the beginning of the ingredient list. If you see them, the food is probably ultra-processed”, Glenn says. “Additives on the label like colors and sweeteners are also a good indicator that you’re buying ultra-processed foods.”

Finally, Glenn advises people to make their own snacks. Rather than buying things like sugary trail mix or granola bars, take control of the ingredients list yourself by combining things like dried fruits and nuts with whole grains, instead of getting the prepackaged versions of snacks”.

To read the full interview with Dr Glenn: <https://www.everydayhealth.com/diet-nutrition/ultra-processed-foods/guide/>

A New Look at Obesity and Weight Loss

In the past, conventional wisdom has held that people who wanted to lose weight should “eat less” and “move more”. However, obesity rates continue to rise in this country and researchers are now arguing that this is because the current “energy balance” approach to understanding weight gain may be wrong.

According to **Dr David Ludwig**, Professor in the Department of Nutrition, overeating isn’t the primary cause of weight gain, “Instead, the process of gaining weight causes us to overeat,” he wrote in a July 28, 2022 *Washington Post* opinion piece.

This theory is known as the “carbohydrate-insulin model,” and it blames obesity on processed, fast-digesting [carbohydrates](#) found in foods like french fries and sugary breakfast cereals. The theory holds that after consuming these foods, the resulting surge of blood glucose and insulin causes the body to send too many calories into fat tissue, leaving too few in the bloodstream to satisfy energy needs. The brain then quickly sends the body messages of hunger again. If a person tries to ignore this hunger and restrict calories, their body will respond by slowing the metabolism to conserve energy.

Ludwig and co-authors including **Walter Willett**, Professor of Epidemiology and Nutrition, outline the current research around the carbohydrate-insulin model and rebut arguments against it in a [paper](#) published in the *European Journal of Clinical Nutrition*.

According to Ludwig, more research is needed to test this theory. If the model is correct, then it would show that deeply ingrained ideas about obesity—especially the stereotype that weight gain is due to poor self-control—are simply wrong.

Ludwig DS, Apovian CM, Aronne LJ, et al. Competing paradigms of obesity pathogenesis: energy balance versus carbohydrate-insulin models. *Eur J Clin Nutr* 2022 doi: 10.1038/s41430-022-01179-2[published Online First: Epub Date].

From: <https://www.hsph.harvard.edu/news/hsph-in-the-news/obesity-weight-loss-new-model/>

Read the Washington Post opinion piece: [What if the focus on calories and energy balance is simply wrong?](https://www.washingtonpost.com/opinions/2022/07/28/obesity-carbohydrates-insulin-calories-fat/)
<https://www.washingtonpost.com/opinions/2022/07/28/obesity-carbohydrates-insulin-calories-fat/>

UPDATES FROM THE DEPARTMENT'S DIB COMMITTEE

By Bristian Justice

Welcome to the sixth of our monthly updates regarding Diversity, inclusion and Belonging within the Department of Nutrition! This column will provide updates regarding NUT-DIB committee efforts along with departmental wide updates for newest developments, changes, and initiatives. While we are currently establishing useful forms of communication to/from the committee, please feel free to submit anonymously via our Qualtrics form https://harvard.az1.qualtrics.com/jfe/form/SV_8D642fDG6wcRNUG

We hope all are enjoying the summer weather, and time off! The NUT-DIB Committee has been organizing our action items for the 2022-2023 Academic year. Recently we created (4) sub-committees which consist of **Community Building, Incorporating Equity, Hiring Practices, and Workshops/Seminars/Trainings** to better focus on our committee/department aims and provide new content for the upcoming academic year. We look forward to releasing updates, and want to welcome everyone back for the new school year!

NUTRITION SOURCE UPDATES

Spotlight on oral health

“There is no health without oral health.” You may have heard this statement but what does it mean? The health of our mouth is more important than many of us may realize. It is a key indicator of overall health, which is essential to our well-being and quality of life. <https://www.hsph.harvard.edu/nutritionsource/oral-health/>

Nutrient feature: Fluoride

Fluoride is a trace mineral naturally found in small amounts in a variety of foods. It is most recognized for its role in preventing and reversing dental caries and building strong teeth and bones.

<https://www.hsph.harvard.edu/nutritionsource/fluoride/>

Make it at home: Walnut Pesto

Trading traditional pine nuts for walnuts, this pesto is bold green, packs a punch, and goes great with everything—though we might just as well eat it by the spoonful. Try it out: <https://www.hsph.harvard.edu/nutritionsource/walnut-pesto/>

(See: <https://www.hsph.harvard.edu/nutritionsource/>)

SAVE THE DATE!

We are pleased to announce that the Department of Nutrition at the Harvard TH Chan School of Public Health will hold its 17th Annual Stare-Hegsted Lecture on Monday, November 14, 2022, from 4:00-5:15 pm.*



Dr Alice H. Lichtenstein, DSc, Tufts University, will be this year's speaker. Dr Lichtenstein, who is an alumna of the Department of Nutrition, is a senior scientist and director of the [Cardiovascular Nutrition Laboratory at the HNRCA](#), as well as the Stanley N. Gershoff Professor of Nutrition Science and Policy at the Friedman School. Dr Lichtenstein also serves as the executive editor of the [Tufts University Health & Nutrition Letter and Associate Editor of the Journal of Lipid Research](#)

Dr Lichtenstein's general research focus is on assessing the interplay between diet and heart disease risk factors, specifically addressing issues related to *trans* fatty acids, soy protein and isoflavones, sterol/stanol esters, novel vegetable oils differing in fatty acid profile and glycemic index, in postmenopausal females and older males. Selected issues have been investigated in animal models and cell systems with the aim of determining the mechanisms by which dietary factors alter cardiovascular disease risk. Additional work is focused on population basis studies to assess the relationship between cholesterol homeostasis biomarkers and nutrient biomarkers, and cardiovascular disease risk; the application of systematic review methods to the field of nutrition, and the impact of taste acuity on food choices and cardiometabolic risk.

Dr. Lichtenstein was vice-chair of the 2015 Dietary Guidelines Advisory Committee (DGAC) of the USDA/HHS. She also served on the 2000 DGAC. Dr. Lichtenstein has chaired AHA's Nutrition Committee, and served on the 2013 AHA/ACC' task forces on practice guidelines to reduce CVD risk.

***Should current Covid restrictions be lifted by that time, Dr Lichtenstein will deliver her lecture in person, final time and venue TBD. Otherwise, this will be a zoom presentation.**

MARK YOUR CALENDARS NOW!

Coming September 2022

Harvard HealthLab Accelerator

Accelerating solutions for public and planetary health

Mentoring, training, and significant financial support for student-run social impact startups from across the university.

To learn more, visit HealthLabAccelerator.Harvard.edu



SCHOOL OF PUBLIC HEALTH



Lemann Program on
Creativity and Entrepreneurship



Early bird registration is currently available.
REGISTER NOW! <https://tkresearchconference.org/>



The poster for the TKRC 2022 Teaching Kitchen Research Conference features a collage of images on the left: a close-up of a fan palm frond, a person presenting at a conference, hands writing on a document, and a group of people in a kitchen setting. The right side of the poster contains the following text:

TKRC
TEACHING KITCHEN
RESEARCH CONFERENCE
2022
OCTOBER 18-19, 2022
Virtual and taking place at the UCLA Luskin
Conference Center, Los Angeles, CA*

Register for the 2022 Teaching Kitchen Research Conference and connect with health professionals, researchers, educators, food system experts and others from around the globe dedicated to the improvement of personal and public health.

two days of...

- Inspiring speakers
- Cutting-edge original research
- Interactive breakout sessions
- Cooking demos & tastings*

Don't miss this opportunity to learn how teaching kitchens are being applied across a diverse spectrum of populations & venues; the business case for teaching kitchens; and the life-long impact these programs can make!

Early Bird Registration Now Open

Abstract submissions opening in April 2022



Funding for this conference was made possible (in part) by R13AT0011986 from the National Center for Complementary and Integrative Health (NCCIH) and the National Heart Lung and Blood Institute (NHLBI). The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention by trade names, commercial practices, or organizations imply endorsement by the U.S. Government.

*In the event that local municipalities, state health boards, sponsoring institutions or CDC guidance restricts the opportunity for an in-person gathering in October 2022, the conference will be conducted virtually, and all in-person tickets will be converted to the standard virtual program pricing, and the difference will be refunded accordingly.

The Nutrition Department Picnic will be on
October 16, 2022 from **11 am** to **2 pm**
at the **Larz Anderson Park in Brookline at the BBQ Shelter.**
(same venue as past years)

Food and drinks will be served.

PLEASE RSVP
by completing this [form!](#)



Transportation to the Larz Anderson Park:

Please note parking is extremely limited. Side street parking can be an option (Avon Street, etc.). Carpooling is advised. It is best to bike/walk or take an Uber/taxi to the park. There is not a form of public transportation that will bring you directly to the area near the park.

Location:

Larz Anderson Park - Newton St. and Goddard Ave. (across from 225 Goddard Ave. in Brookline, MA)

Directions:

Directions can be accessed via the link under the map image at:

<http://www.brooklinema.gov/Facilities/Facility/Details/Larz-Anderson-Park-87>

Precision Nutrition Forum

1st edition – Gothenburg

12–13 SEPTEMBER 2022, GOTHENBURG, SWEDEN



Precision Nutrition Forum, 1st edition – Gothenburg:

Using Multi-OMICs for Data-Driven Systems Epidemiology - Towards Precision Nutrition

Scope

Metabolic diseases, including obesity, type 2 diabetes, cardiovascular disease, and some cancers, pose a major burden on public health systems, accounting for most global chronic diseases and deaths. These conditions share complex underlying pathophysiology interacting with environmental, lifestyle, and dietary factors. It is widely recognized that poor diet quality contributes substantially to these conditions, but the mechanisms by which diet influences metabolic health are not well studied. Emerging tools and technologies, including metabolomics profiling, can help elucidate mechanisms underpinning the relationship between diet and metabolic disease. In addition, integrating metabolomics with other omics data is critical to understanding interindividual differences in the metabolic response to dietary interventions. Therefore, OMICs profiling in nutritional studies can elucidate the biological role of diet composition in chronic disease etiology and expand the evidence base of dietary guidelines in the general population. Moreover, a thorough understanding of the molecular links between diet and disease risk could pave the way for precision nutrition, where dietary advice and interventions are tailored to individuals based on their health status, lifestyle factors, social-cultural factors, and genetics and other molecular phenotypes.

The goal of the Precision Nutrition Forum, 1st edition – Gothenburg is to bring together interdisciplinary expertise in nutritional epidemiology, high-throughput omics technologies (genomics, metabolomics, metagenomics, and proteomics), and data science and present the latest concepts and advances in precision nutrition research. The Forum will gather world-leading multi-omics and precision nutrition experts from Europe and the US, with the goal of fostering international collaboration through the Swedish cohort infrastructures and the national Data-Driven Life Science initiative (DDL).

Hosted at Chalmers University of Technology, Gothenburg, Sweden

Chalmers scientific organization: Clemens Wittenbecher & Rikard Landberg

External scientific organization committee members: Marta Guasch-Ferré, Jordi Merino


Head of administrative organization: Mia Gartner

Funded by: Hjärtlungfonden, Chalmers Area of Advance Health Engineering, Cancerfonden and DDL

The confirmed speakers include Frank B Hu, Paul W Franks, Marju Orho-Melander, Andrew T Chan, Walter C Willett, Miguel A Martínez-González, Shilpa Bhupathiraju, Rikard Landberg, Matthias Schulze, Qi Sun, Marta Guasch-Ferré, Karl Michaëlsson, Clemens Wittenbecher, Clary Clish, Jessica A. Lasky-Su, Liming Liang, Carl Brunius, Mats Jirstrand, Fredrik Bäckhed, Ann-Sofie Sandberg, Majken K. Jensen, Jordi Merino, and Göran Bergström.

Agenda: <https://www.chalmers.se/en/departments/bio/calendar/Pages/Precision-Nutrition-Forum-1.aspx>

Registration:

 [Link to registration](#), deadline: **2nd September 2022**

 [Link to abstract submission](#), deadline: **12th August**

2022

**Event Title**

Call for abstracts! DF/HCC Brief Updates on Obesity, Metabolism, and Cancer

Events Date

Wednesday, September 21st 2:30 – 5:30 PM EDT

Events Location

Smith 308/309 at Dana-Faber Cancer Institute; Virtual option available

Event Type

Conference, Forum, Research, Seminar, Seminar Series, Symposium

Event Description

The Dana-Farber/Harvard Cancer Center (DF/HCC) Population Science Programs host “Brief Updates” series by inviting members of the scientific community to share advancements, build new collaborations, promote active communication, and show synergy across thematic areas.

Our next “Brief Updates” will focus on the topic of *Obesity, Metabolism, and Cancer*. We will feature an exciting panel discussion with short talks by Dr. Edward Giovannucci (HSPH), Dr. Lewis Cantley (DFCI), Dr. Fatima Stanford (MGH), and Dr. Christina Dieli-Conwright (DFCI) followed by moderated discussion. The panel will be followed by rounds of lightning talks from early-career investigators showcasing their recent research as well as thematic group discussions. We invite students, post-docs, residents, clinical fellows, and other early career investigators across the DF/HCC institutions to submit abstracts for consideration as oral presentations. We hope this event will provide a valuable opportunity for researchers in the population health sciences to share their discoveries and connect across disciplines.

This half-day event will be held at the Smith 308/309 at Dana-Faber Cancer Institute and will be a hybrid event. Speakers are encouraged to participate in person.

Register for this event and/or submit abstracts using the following link:

https://harvard.az1.qualtrics.com/jfe/form/SV_78UXPddrH1vCxEi

For more information, visit the event website <https://www.dfcc.harvard.edu/index.php?id=2266>