

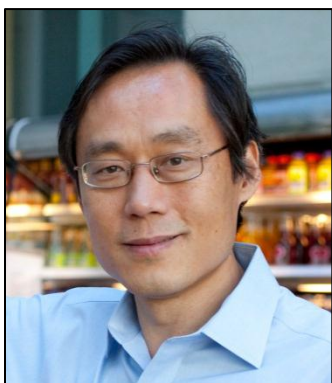
# NUTRI NEWS

## The Department of Nutrition

**November 2018**

To subscribe to NutriNews, please contact Hilary Farmer, Editor: [hfarmer@hsph.harvard.edu](mailto:hfarmer@hsph.harvard.edu).

### Professors Frank Hu and Majken Jensen Honored at AHA Meeting



**Dr Frank Hu**, Chair of the Department of Nutrition, and Fredrick J Stare Professor of Nutrition and Epidemiology, delivered the **2018 Ancel Keys Memorial Lecture**, titled "*Personalized Nutrition vs Public Health Nutrition in Cardiometabolic Disease Prevention*" at the annual meeting of the American Heart Association in Chicago on November 10, 2018. This Lecture was established in 1990 by the Council on Epidemiology (now the Council on Epidemiology and Prevention) to honor Dr Ancel Keys, who was a founding member of the Council. Dr Keys enjoyed a long and distinguished scientific career in the study of cardiovascular diseases, their causes, correlates, and prevention in the US and abroad. Hu's research is focused on nutritional and lifestyle epidemiology, prevention of obesity and cardiometabolic diseases, gene-environment interactions, and nutritional metabolomics.

According to Dr Hu, personalized nutrition, or precision nutrition, adapts dietary interventions or recommendations that are based on a person's individual characteristics such as genetic makeup to manage and prevent various chronic diseases. However, Hu noted that despite some technological advances, considerable research is still needed before personalized nutrition can be widely used in clinical and public health settings. In contrast to this individualized approach, public health nutrition aims to prevent diseases in larger populations, employing strategies that target a wider audience such as community-based intervention and policy changes.

In addition to biological, behavioral, and demographic factors, an individual's food choices are shaped by socioeconomic and cultural factors, as well as the food environment. Dr Hu believes that these macro-level factors also play an important role in modifying an individual's response to certain dietary interventions and should receive a high priority in research. Although population-based interventions should remain fundamental strategies, their efficacy in improving diet quality and health outcomes can be enhanced with new technologies such as mobile apps and big data analytics.

**Dr Walter Willett**, Professor of Epidemiology and Nutrition, delivered the Ancel Keys Memorial Lecture in 2006.

**Dr Majken Jensen**, Associate Professor in Nutrition and Epidemiology, was awarded the **2018 EPI/GPM Mid-Career Research Award and Lecture**, at the AHA's Council on Epidemiology & Prevention and Council on Genomics & Precision Medicine's (EPI/GPM) Scientific Sessions. This award recognizes an outstanding scientist bridging the gap between epidemiology and functional genomics/translational biology. The award is meant to highlight the innovative science being produced by the AHA and respective council members.

Dr Jensen leads a research group focused on biomarker epidemiology in cardiometabolic disease and aging. Specifically, her work examines novel risk markers of CVD and Alzheimer's disease; it has sought to understand the complexity of high-density lipoproteins (HDL) in CVD by bridging molecular and epidemiological work. As an active member of the AHA, Jensen has served as co-chair of the genetic and observational epidemiology grant review committee; she is also a member of the Publications committee and the Molecular Determinants of Cardiovascular Health committee.



In Jensen's lecture, titled "*High-Density Lipoprotein: Reconciling Associations and Functions*", she discussed her work that has examined HDL functionality vs absolute HDL cholesterol levels. Her research group has discovered that the presence of apolipoprotein CIII (apoC-III) on HDL renders it unprotective. Similarly, apoC-III also modifies the role of HDL in diabetes and insulin regulation. This may explain why, even despite being a strong inverse risk factor for CVD, recent drug trials did not find that raising HDL levels was beneficial for CVD risk reduction. Her work will continue to focus on exploring the complex constellation of lipid and proteins that make up what we call "HDL".

## NEWS FROM AROUND THE NUTRITION DEPARTMENT

**Dr Audrey Gaskins**, Research Associate, will publish the following paper in December:

**Gaskins AJ**, Missmer SA, Rich-Edwards JW, Williams PL, Souter I, **Chavarro JE**. Demographic, lifestyle, and reproductive risk factors for ectopic pregnancy. *Fertility Sterility*. 2018 Dec.

**Dr Gaskins** will be leaving the Department in December to begin her new position at Emory University on January 1, 2019. She can be reached at:

Audrey Gaskins, Sc.D.  
Assistant Professor  
Department of Epidemiology | Emory Rollins School of Public Health  
1518 Clifton Rd NE | Atlanta, GA 30322

**Elena Hemler**, Program Coordinator, and **Dr Frank Hu**, Department Chair, published a chapter in the following book:

Hemler EC, Hu FB. Healthy and sustainable dietary patterns for prevention of chronic diseases and premature death. In D'Silva J & McKenna C (Eds.) *Farming, Food and Nature*. 2018. London: Routledge.

**Link to book:**

<https://books.google.com/books?id=INNyDwAAQBAJ&pg=PT1&dq=food,+farming+nature&hl=en&sa=X&ved=0ahUKewjzguTNgsjeAhVrUt8KHctiCxoQ6AEIPTAD#v=onepage&q=food%2C%20farming%20nature&f=false>

**Dr Anne Lusk** has conducted research on preferences about trees, cycle tracks, and sidewalks, published in the peer-reviewed journal "Cities." Lusk also wrote a lay article for "The Conversation" with links to the "Cities" article and a podcast by Harvard Chan School. Her lay piece in "The Conversation", <https://theconversation.com/designing-greener-streets-starts-with-finding-room-for-bicycles-and-trees-101064>, has now had 10,786 reads.

On Saturday, November 3<sup>rd</sup>, **Dr Anne Lusk** was on a four-person panel at the "Future of Aging" Think Tank in Boston. This workshop was organized by Accelerate, Wentworth Innovation, and the Entrepreneurship Center with Innovate @BU and held at the Innovation Center in Boston. Dr. Lusk spoke about the need to build wide cycle tracks so that seniors could bicycle side-by-side and ride senior-friendly bikes such as the Balance Bike, the Easy Rider, and the Fun2Go.

**Dr Daniel Wang**, Research Fellow, had a paper published in the *International Journal of Epidemiology*. This methodology-focused paper presents a novel network/pathway-based approach for analyzing high-throughput metabolomics data and demonstrates this new approach's ability to identify biologically meaningful pathways that predict the risk of cardiovascular disease.

Wang DD, Zheng Y, Toledo E, Razquin C, Ruiz-Canela M, Guasch-Ferré M, Yu E, Corella D, Gómez-Gracia E, Fiol M, Estruch R, Ros E, Lapetra J, Fito M, Aros F, Serra-Majem L, Clish CB, Salas-Salvadó J, Liang L, Martínez-González MA, Hu FB. Lipid metabolic networks, Mediterranean diet and cardiovascular disease in the PREDIMED trial. *Int J Epidemiol*. 2018 Nov 13. doi: 10.1093/ije/dyy198. [Epub ahead of print] PubMed PMID: 30428039. <https://www.ncbi.nlm.nih.gov/pubmed/30428039>

**Dr Josiemer Mattei** (Principal Investigator) and **Hannah Cory** (Co-Investigator, and third-year student in the Public Health Nutrition concentration) received an Early Career Research Award from the Strategic Training Initiative for the Prevention of Eating Disorders (STRIPED) for their project "Sociocultural weight stigma and disordered eating behaviors in Latinx adolescents". The goal of this study is to identify how stigmatizing social attitudes towards weight are experienced by Latinx adolescents and associated with disordered eating behaviors, and the role of acculturation, using a mixed-methods approach.

## New Faces in the Department!



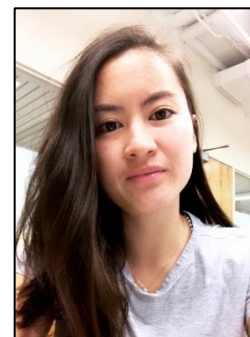
**Areli Caballero-Gonzalez**  
**Research Assistant**

My name is **Areli Caballero** and I have just started working as a research coordinator in the Nutrition Department with **Dr. Josiemer Mattei**. My family is originally from Mexico and I am fully bilingual in both Spanish and English. My research here includes working with the Latino community, and my goal is to try and find the cultural perceptions that are tied to diet within this group.

I have recently graduated from Boston University with a bachelor's degree in Health Science. During my undergraduate years my research was focused on the benefits of nutrition and exercise. Now working at HSPH I am happy to continue with my research in nutrition through a more qualitative approach.

**Michelle Lee Bravatti**  
**Research Assistant**

**Michelle Lee Bravatti** was born and raised in Guatemala City. Her mother is from Guatemala and her father is from Hong Kong. She obtained a B.S. in Health Sciences at Purdue University and recently graduated from Tufts University with an M.S. in Nutritional Epidemiology and an M.P.H. in Epidemiology and Biostatistics. Michelle is a new research assistant in the Department of Nutrition, Harvard T.H. Chan School of Public Health, under the guidance of **Dr. Josiemer Mattei**. She is primarily involved in PROSPECT, but also in other projects such as PRADLAD, BPRHS, SOALS, and PREHCO.



**Zhangyan Lyu**  
**Graduate Student**

My name is **Zhangyan Lyu**. I graduated from Hebei Medical School with a BS degree in prevention medicine in 2015. Now, I am a 4<sup>th</sup>-year PhD candidate at the National Cancer Center of China/ Cancer Hospital, Chinese Academy of Medical Sciences (CAMS), Peking Union Medical College. I will be joining the Department of Nutrition as a joint-PhD student and will be supervised by **Dr. Edward Giovannucci**. I have been working on research projects such as the Kailuan cohort study and

Cancer Screening Program in Urban China (CanSPUC), and my research interest here will focus on cancer risk prediction models.

**June O'Neill**  
**Research Assistant**

I am so excited to be here in the Nutrition Department as a Data Research Assistant on the PROSPECT Study. I come to HSPH with a long history of database design, data analytics, evaluation, and reporting. I have an MPH in Epidemiology from Emory University and have since worked in the academic, public, and private sectors. My professional background is in cardiovascular disease along with quality improvement in hospital systems.



I live in Plymouth with my husband, two daughters, and our rescue dog. Outside of work I play indoor soccer, love baking (went professional for a bit), volunteer with a dog rescue team, do at least one triathlon a year, and most recently took up acoustic guitar. Looking forward to this next chapter in my life!



**Evelin Garcia**  
**Research Assistant**

My name is **Evelin Garcia** and I will be joining **Dr. Kirsten Davison's** team as a Research Assistant for the Communities for Healthy Living (CHL) project.

I was born in Mexico City but I grew up in Danbury, Connecticut. I earned a Bachelor's degree in Human Biology and Community Health Studies from Western Connecticut State University. My research



experience has been quite interdisciplinary, ranging from molecular genetics and cancer clinical trials to community health and health policy. Nevertheless, my projects have focused on addressing health disparities among underrepresented ethnic minorities, uninsured and low-income communities, as well improving access to care through community health interventions and policy changes. Before joining the Nutrition Department, I was a Policy/Legislative and Community Organizer with Connecticut Students for a Dream, an immigrant rights non-profit organization, and a Clinical Assistant in pediatrics. Over the summer, I participated in HSPH's FACETS program through which I took graduate courses and engaged in research on the opioid epidemic with Dr. Meredith Rosenthal from the Department of Health Policy.

I am excited about my new role with CHL. I look forward to working towards empowering low-income families and ultimately improving their health and wellbeing. An interesting fact about me is that I have two pets: a 2-year-old Chihuahua mix and a 5-year-old duck!

## 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 and global public health. These seminars are held from **1:00-1:20 pm in Kresge 502** at the Harvard T.H. Chan School of Public Health. The seminars are free and open to the public.

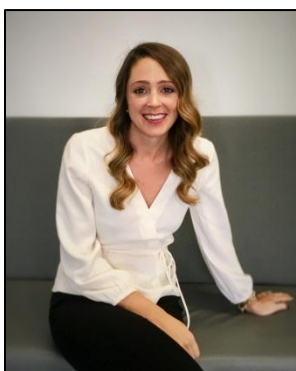
*The following speakers will discuss their work in December:*

- Dec 3            **Dr Katherine Semrau**, Director of the BetterBirth Program, Ariande Labs, and Assistant Professor, HMS. "Low birthweight infant feeding exploration (LIFE): understanding WHO guidelines & implementation in low- & middle-income settings." (NGHP)
- Dec 10          **Dr Changzheng Yuan**, Postdoctoral Fellow, Department of Nutrition. TBD
- Dec 17          **Dr Dong (Daniel) Wang**, Research Fellow, TBD

**There will be no Monday Nutrition Seminars during the Winter Recess.** Our regular seminar series will resume on January 28, 2018.

*For more information, contact: [hfarmer@hsph.harvard.edu](mailto:hfarmer@hsph.harvard.edu)*

## Where Are They Now?



**Dr. Audrey Gaskins** will be leaving the Nutrition Department at the end of December to begin her new position as an assistant professor in the Department of Epidemiology at the Emory University Rollins School of Public Health. Audrey joined our department in August 2010 when she started her doctoral program in Nutritional Epidemiology. Since then she graduated with her Sc.D. in Nutrition & Epidemiology, started a postdoctoral fellowship, and received at K99/R00 from NIEHS. Over the past 8 years she has published over 80 academic articles, including 62 articles that she co-wrote with her long-term mentor **Dr. Jorge Chavarro**. At Emory, Audrey will continue working on her R00 grant which focuses on how air pollution affects early pregnancy outcomes and the potential for diet to modify these associations. She will be making regular trips back up to Boston over the next 2 years to check in on her pilot study at MGH which

measures personal exposure to fine particulate matter air pollution among women during the first 3 days of their *in vitro* fertilization cycle. Audrey will also continue to collaborate remotely with the Nurses' Health Study 3 cohort. Feel free to reach out to Dr. Gaskins using her new contact information: [audrey.jane.gaskins@emory.edu](mailto:audrey.jane.gaskins@emory.edu).

## New Faculty/Research Scientist Appointments

The following people have received appointments in the Department of Nutrition:

**Dr Marta Guasch-Ferré**, Research Scientist.

## MORE NUTRITION IN THE NEWS

### Is dietary fat good or bad for you?

For years researchers have been debating whether low-fat/high-carbohydrate vs high-fat/low-carbohydrate diets are more beneficial, but perhaps this simple dichotomy is not quite that simple after all. In a new paper, featured on the cover of *Science* magazine's special issue on nutrition, researchers from the Department of Nutrition, Boston Children's Hospital, and colleagues with diverse expertise and perspectives on the issues laid out the case for each position and came to a consensus along with a future research agenda.

According to **Dr David Ludwig**, Professor in the Department of Nutrition, and Professor of Pediatrics, HMS, "Our goal was to assemble a team with different areas of expertise and contrasting views, and to identify areas of agreement without glossing over differences". The authors all agreed that no specific fat to carbohydrate ratio is best for everyone, and that an overall high-quality diet that is low in sugar and refined grains will help most people maintain a healthy weight and low chronic disease risk. Ludwig said that "This is a model for how we can transcend the diet wars".

According to the authors, there are three contrasting positions on dietary guidelines for fat and carbohydrate consumption:

- High consumption of fat causes obesity, diabetes, heart disease, and possibly cancer; therefore low-fat diets are optimal.
- Processed carbohydrates have negative effects on metabolism; lower-carbohydrate or ketogenic (very low-carbohydrate) diets with high-fat content are better for health.
- The relative quantity of dietary fat and carbohydrate has little health significance—what's important is the type of fat or carbohydrate source consumed.

It was agreed that by focusing on diet quality—replacing saturated or trans fats with unsaturated fats and replacing refined carbohydrates with whole grains and nonstarchy vegetables—most people can maintain good health within a broad range of fat-to-carbohydrate ratios.

Although there were still some areas of disagreement, the authors proposed some questions that they said can form the basis of a new nutrition research agenda, and discovering the answers to these questions will ultimately lead to more effective recommendations. For example:

- Do diets with various carbohydrate-to-fat ratios affect body composition (ratio of fat to lean tissue) regardless of caloric intake?
- Do ketogenic diets provide metabolic benefits beyond those of moderate carbohydrate restriction, and especially for diabetes?

- What are the optimal amounts of specific types of fat (including saturated fat) in a very-low-carbohydrate diet?

**Dr Walter Willett**, Professor of Epidemiology and Nutrition, is a co-author of the paper.

“Dietary fat: From foe to friend?,” David S. Ludwig, Walter C. Willett, Jeff S. Volek, Marian L. Neuhouser, online in *Science*, November 15, 2018, doi: 10.1126/science.aau2096

**From:**

<https://www.hsph.harvard.edu/news/press-releases/coming-to-consensus-on-dietary-fat/>

[https://news.harvard.edu/gazette/story/2018/11/dietary-fat-is-good-dietary-fat-is-bad-coming-to-consensus/?utm\\_source=SilverpopMailing&utm\\_medium=email&utm\\_campaign=Daily%20Gazette%2020181116](https://news.harvard.edu/gazette/story/2018/11/dietary-fat-is-good-dietary-fat-is-bad-coming-to-consensus/?utm_source=SilverpopMailing&utm_medium=email&utm_campaign=Daily%20Gazette%2020181116)

## Diabetes risk in women increased by night shifts and unhealthy lifestyles

According to a new study, both rotating night shift work and an unhealthy lifestyle are linked with increased risk of type 2 diabetes in women. However, when both factors are present the risk is even greater than when adding together the effects of each risk individually.

According to a November 23, 2018 *Medscape* article, data from more than 143,000 women enrolled in the Nurses’ Health Study and the Nurses’ Health Study II were analyzed, and the researchers found that every five years of rotating night shift work increased women’s risk of type 2 diabetes by roughly 30%, and that having a combination a several unhealthy lifestyle factors—such as smoking or having a poor diet—more than doubled the risk. Also, women who worked rotating night shifts for more than five years and who also had an unhealthy lifestyle were 2.83 times more likely than women without these factors to develop type 2 diabetes. The two factors together accounted for 11% of additional risk.

The findings suggest that most cases of type 2 diabetes could be prevented by maintaining a healthy lifestyle, and that the benefits would be greater in people who work rotating night shifts.

Harvard Chan researchers involved with the study included lead author Zhilei Shan, **Yanping Li**, **Geng Zong**, Yanjun Guo, Jun Li, JoAnn Manson, **Frank Hu**, **Walter Willett**, Eva Schernhammer, and **Shilpa Bhupathiraju**.

Read the *Medscape* article: [Night Shifts and Unhealthy Lifestyle Combine to Up Risk of Diabetes](#)

**From:** <https://www.hsph.harvard.edu/news/hsph-in-the-news/night-shifts-unhealthy-lifestyle-diabetes-women/>

**Learn more:**

[Rotating night shift work linked to increased risk of type 2 diabetes in women](#) (Harvard Chan School release)

Visit the Harvard Chan School website for the latest news, press releases, and multimedia offerings.

## NUTRITION SOURCE UPDATES

### Healthy holiday gift guide

From olive oil to a home-cooked meal, here are 17 creative and healthy gift ideas:

<https://www.hsph.harvard.edu/nutritionsource/2015/12/03/healthy-gift-guide-17-ideas-for-giving-the-gift-of-health/>

### Choosing healthy proteins

Learn the basics about protein and shaping your diet with healthy protein foods:

<https://www.hsph.harvard.edu/nutritionsource/what-should-you-eat/protein/>

### Test your protein knowledge!

Ready to see how much you know about protein and healthy protein foods? Try this 10 question quiz to find out:

<https://www.hsph.harvard.edu/nutritionsource/what-should-you-eat/protein/#protein-quiz>

### New Physical Activity Guidelines

Highlights from the updated evidence-based recommendations for staying active.

<https://www.hsph.harvard.edu/nutritionsource/2018/11/13/new-physical-activity-guidelines-for-americans/>

### Effects of varying amounts of carbohydrate on metabolism after weight loss:

<https://www.hsph.harvard.edu/nutritionsource/2018/11/27/effects-of-varying-amounts-of-carbohydrate-on-metabolism-after-weight-loss/>

*If you would like to remain current as to what is happening in the field of nutrition, please be sure to view our Nutrition Source website for the latest updates!*

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

**What's the story, Regulatory?** - Find out more about the Harvard Catalyst and the Regulatory Foundations, Ethics, and Law program. Learn about our resources and how we help research professionals, investigators, and research staff navigate the regulatory field in human research.

Tuesday, 12/04/18, 2:30-3:30pm, Countway, Room 403 [Registration](#)

**For more information:** [afagan@hsph.harvard.edu](mailto:afagan@hsph.harvard.edu)





**The Department of Nutrition is currently seeking candidates for the position of Assistant or Associate Professor of Integrative Genomic Epidemiology. Please feel free to share this with your colleagues!**

*For more information:* <https://academicpositions.harvard.edu/postings/8319>