



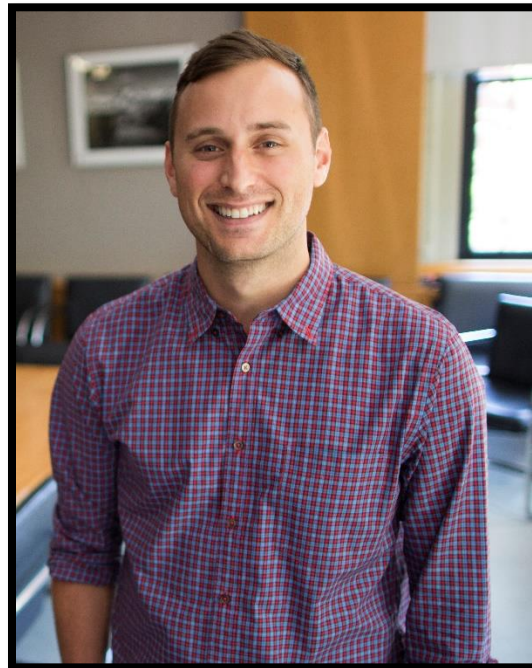
NUTRI NEWS

The Department of Nutrition

September 2021

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Dr Chris Golden Explores Potential of Harnessing Aquatic Foods as Solution to Solving Global Malnutrition



Dr Christopher Golden, Assistant Professor of Nutrition & Planetary Health, has recently produced five scientific papers in *Nature* and *Nature Food* for the Blue Food Assessment (BFA), an international joint initiative that brings together over 100 scientists from more than 25 institutions. This interdisciplinary team supports decision-makers in evaluating trade-offs and implementing solutions to build healthy, equitable and sustainable food systems. The [Stockholm Resilience Centre at Stockholm University](#) and the Center for Ocean Solutions at [Stanford University](#) are lead science partners; [EAT](#) is the lead impact partner.

Golden's important body of research, entitled "*Aquatic foods to nourish nations*," found that an increase in the sustainable production of aquatic foods through investments in aquaculture and improved fisheries management would lead to a decrease in prices by 26%, making fish and seafood more affordable for low-income populations around the world. Golden and colleagues determined the top seven categories of nutrient-rich animal-source foods are all aquatic and include pelagic fish (sardines, herring, and other species), bivalves, and salmonids (salmon, trout, and related fish). Golden states that "Sustainably ramping up production and consumption of these foods through aquaculture (or farming in the ocean), supply chain improvements, and better fisheries management is critical to addressing staggering global levels of malnutrition and associated micronutrient deficiencies."

In this study, Golden highlighted several ways in which aquatic foods improve human health, including reducing micronutrient deficiencies and offering alternatives to red and processed meat, which are often associated with non-communicable disease. His study found that some 166 million micronutrient deficiencies could be averted by 2030 if the global production of marine and freshwater foods is increased by 15.5 million tons (8%).

According to Golden, "We live in a deeply malnourished world, with billions of people suffering from micronutrient deficiencies and diet-related chronic diseases. Finding ways to sustainably increase the production of blue foods offers an opportunity to increase access to safe, nutritious and healthy diets for the world's most vulnerable." The authors added that aquatic foods offer the chance for developing countries to improve their diets without suffering the negative health risks associated with the meat-intensive diets of more affluent countries.



Aquaculture, Getty

The findings are based on data from the Aquatic Foods Composition Database (AFCD), which was developed by Golden here at Harvard to increase understanding of the potential nutritional benefits of aquatic foods. It is now the most comprehensive global database of its kind, profiling 3,753 aquatic food species and hundreds of nutrients, with important implications for nutrition and fishery management policies across the world. This database is open-access and available for download.

"For the first time, our study highlights the significant role of aquatic foods in meeting the dietary needs of nutritionally vulnerable populations, while also mitigating chronic diseases by weaning people away from red and processed meats," Golden added.

Dr Golden has also co-authored four other papers centered around this research. In another study published on September 15, 2021 in *Nature* entitled “The environmental performance of blue foods”, of which Golden is a co-author, the team quantified the environmental impacts of aquatic food production in a standardized way so that they could compare across sectors. It is hopeful that many of the categories that Golden classified as most nutritious (e.g., sardines, salmon, herring, bivalves, etc.) are the same species that are the least impactful on the environment.

To date most analyses by public health researchers emphasize terrestrial food sources and tend to frame aquatic foods as a largely monolithic category of “seafood or fish.” Because of this oversimplified categorization, aquatic foods are being undervalued as a nutritional solution. The myriad micronutrients they offer are being overlooked, according to the researchers.

According to Golden, “Aquatic foods seem to be a unique win-win. They have very high nutrient richness and also can be produced with relatively low environmental impacts in comparison to terrestrial meats.”

Golden argues that the study and the Aquatic Foods Composition Database have important implications for nutrition and fishery management policies across the world. For example, if calcium deficiency is an issue in Turkey, the country may want to consider increasing the consumption of herring, sardines, or other small pelagic fish, which are rich sources of the mineral. If vitamin A deficiency is an issue in Brazil, it may make sense for the country to promote the production of oysters or the consumption of sardines, both of which are high in vitamin A. “In an effort to formulate food systems that will nourish the world while staying within the ecological limits of our planetary boundaries, aquatic food production is a sensible path forward,” Golden said.

Other Harvard Chan School researchers who contributed to the study included **Simone Passarelli, Daniel Viana, Alon Shepon, Eric Rimm, Goodarz Danaei, and Heather Kelahan. Camille DeSisto** also contributed while an undergraduate at Harvard College.

Golden CD, Koehn JZ, Shepon A, Passarelli S, Free CM, Viana DF, Matthey H, Eurich JG, Gephart JA, Fluet-Chouinard E, Nyboer EA, Lynch AJ, Kjellevoid M, Bromage S, Charlebois P, Barange M, Vannuccini S, Cao L, Kleisner KM, Rimm EB, Danaei G, DeSisto C, Kelahan H, Fiorella KJ, Little DC, Allison EH, Fanzo J, Thilsted SH. 3. Aquatic foods to nourish nations. *Nature*. 2021 Sep 15. doi: 10.1038/s41586-021-03917-1. Online ahead of print. PMID: 34526720

From: <https://www.hsph.harvard.edu/news/press-releases/more-affordable-aquatic-foods-could-prevent-166-million-micronutrient-deficiencies-worldwide/>
<https://www.hsph.harvard.edu/news/features/increasing-production-of-aquatic-foods-a-win-win-for-people-and-planet/>

To learn more about Dr Golden’s important research on better harnessing aquatic foods:

<https://www.nature.com/articles/s41586-021-03917-1>
<https://www.nature.com/articles/s41586-021-03889-2>
<https://www.nature.com/articles/s41467-021-25516-4>
<https://www.nature.com/articles/s43016-021-00368-9>
<https://www.nature.com/articles/s43016-021-00363-0>

For some important syntheses:

<https://www.nature.com/immersive/d42859-021-00055-6/index.html>
<https://www.nature.com/articles/d41586-021-02476-9>

For more extensive coverage of the health benefits of aquatic foods, see the Nutrition Source:

<https://www.hsph.harvard.edu/nutritionsource/aquatic-foods/>

THE DEPARTMENT OF NUTRITION WELCOMES 21 NEW STUDENTS TO ITS MPH-65 AND PhD PROGRAMS THIS FALL!

The Department of Nutrition is proud to announce that 16 new MPH-65 students and 5 new PhD students will join our Department this fall. Once again, we have managed to attract outstanding candidates. These students come from diverse backgrounds, and are from different parts of the US and world. Many have already gained valuable experiences in the fields of nutrition and public health before arriving here. We are sure that all of them will be an invaluable asset to our programs. Let's meet these new students now, and welcome them to the Department!

MPH-65 2021 STUDENTS



Katie Donnelly

My name is Katie Donnelly. I've spent the last few years working as the Kitchen Coordinator at SAME Cafe, a nonprofit pay-what-you-can restaurant in Denver. There I was able to work on creating a more equitable food system through the cafe's initiatives as well as by doing food policy level work with one of the cafe directors. I chose this program as it was important to me to have a school that valued health activism, specifically the responsibility of public health to improve and protect the health of all especially the most vulnerable.



Hannah Fuller

My name is Hannah Fuller. I grew up in Massachusetts and went to school at the University of Michigan (go blue!) At Michigan, I majored in Environmental Science. Outside of class I was involved in sustainable food and nutrition student groups. After graduating I returned to Boston to work at the Harvard Pilgrim Health Care Institute for 2 years as a Research Assistant on a team that supported Project Viva, a longitudinal research study of women and children. I chose the MPH-65 in Nutrition program at Harvard Chan because it will allow me to further pursue my interests in nutritional epidemiology and planetary health.



Elisabetta Ferrero

I was born and raised in Torino, Italy. In 2014, my family and I moved to Tucson, AZ, where my parents had the opportunity to open a small Italian restaurant. Their work is the inspiration for my academic and professional development.

I majored in Molecular and Cellular Biology at the University of Arizona, where I was exposed for the first time to behavioral sciences research. After graduation, I was fortunate to receive a position as a clinical research assistant for the New Balance Foundation Obesity Prevention Center, at Boston Children's Hospital. Here, I became passionate about nutrition research and its role in Public Health and decided to pursue an MPH in Nutrition.

I chose to join Harvard Chan School of Public Health because of its interdisciplinary approach to education, endless learning and research opportunities, and international community. During my time as an MPH student, I hope to work with faculty and fellow students to deepen my understanding of social and behavioral determinants of health that affect dieting and nutrition. My goal after graduation is to pursue a Ph.D. in Public Health Nutrition, to continue the study of factors that affect nutrition and design intervention and education programs that modify the way people think about, grow, and consume food.

In my free time, I love swimming and reading. Fun fact about me: I named my dog Pip after the main character of one of my favorite novels, *Great Expectations* from C. Dickens.

Agata Atayde

My name is Agata and I am honored and excited to be embarking on this public health journey surrounded by exceptional professors and a remarkable group of students. I have been pulled towards the field of nutrition for a while now and am happy to have finally arrived. I hope to use these next two years to not only gain tangible skills to further my understanding of the systemic nutrition-based problems that permeate our society but also to make the connections both personal and professional that will guide me towards finding my purpose.





Samantha Jaffe

My name is Samantha Jaffe and I am excited to be joining the MPH-65 in Nutrition program at the Harvard T.H. Chan School of Public Health. Since graduating in 2019 from Simmons University, I worked as a clinical research coordinator at Tufts University in their Nutrition, Exercise Physiology, and Sarcopenia Lab. I worked on a study examining the role of structured exercise and adherence to the Mediterranean Diet on the health of new mothers and infants before pregnancy. Through this experience I became very interested in the role of nutrition before, during, and after pregnancy and its effect on the mother and infant.

I chose Harvard, first, for the opportunity to learn about public health and nutrition from the professors who are leaders in their respective fields and students from all over the world. Additionally what drew me to Harvard is their Center for Excellence in Maternal and Child Health (MCH). I am looking forward to taking classes through their MCH concentration, attending their seminars, and learning from the various researchers and professors working in this field at Harvard. I look forward to studying nutrition through policy, planetary health, and global health that will help me work towards improving maternal and child health on a global scale.

In my free time you can usually find me running, trying new food around Boston, spending time with friends and family, or listening to a podcast!



Kristine Kiross

My name is Kristine Kiross and I'm excited to be joining the MPH-65 in Nutrition program. I'm from Berkeley, California and completed my undergraduate studies in Japan at Waseda University where I concentrated in sociology. After graduating, I returned to the San Francisco bay area and volunteered for an organization called Chilis on Wheels where I helped organize meal shares for those experiencing homelessness. This brought to my attention the lack of access to healthy foods for many racial and ethnic minorities. Most recently, I worked at a food-tech startup in SF creating products to make good nutrition more accessible to all. At Harvard, I'm interested in conducting research in food policy to increase

access to healthy foods for underserved populations both nationally and internationally.

In my free time I enjoy singing, dancing, hiking, and swimming.



Alexandra Yunker

My name is Alexandra Yunker, and I am thrilled to join the MPH in Nutrition program! After receiving my Bachelor of Arts in Anthropology from University of California Los Angeles (UCLA) in 2018, I joined the University of Southern California (USC) Brain Regulation of Appetite, Nutrition, Cognition, & Health (BRANCH) Laboratory as a Project Assistant, under the direction of Kathleen Page, MD. During my 3 years with USC, I investigated how lifestyle behaviors, including diet and physical activity, impact neuroendocrine regulation of appetite and feeding behavior. My current research interests center on integrating assessments of diet, physical activity, and other health behaviors to support the work of translating known mechanistic findings into novel nutrition actions and lifestyle intervention strategies aimed at ameliorating chronic disease across the lifespan, particularly in the context of women's

and child/adolescent health. This semester, I am very excited to be joining the Dieli-Conwright Laboratory in the Dana Farber Cancer Institute as a Graduate Research Assistant, where I'll have the opportunity to examine mechanisms by which prescriptive exercise interventions can impact post-diagnosis cancer outcomes.

In addition to my work, I enjoy hiking, gardening, yoga, and especially, cinema!

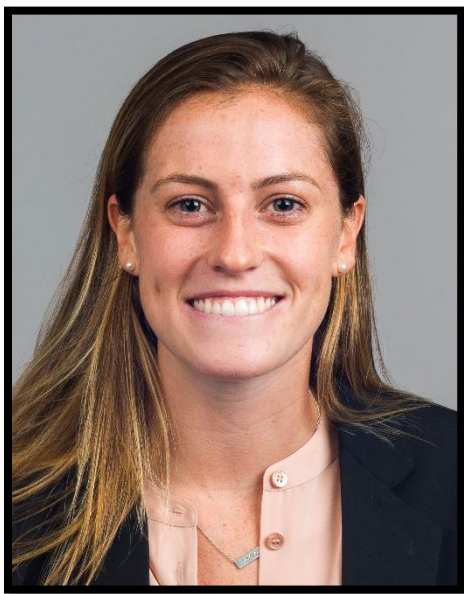


Emily Murphy

I completed my undergrad in 2016 at North Carolina State University where I studied Business Administration. I spent the past four years in Boston working at an innovative primary care startup serving seniors, Iora Health. While my work focused on operations, I became educated on healthcare system challenges, especially related to adequate access.

In addition to work, I became increasingly interested in health and diet for personal reasons that led me to volunteer at local organizations aimed to improve food security for vulnerable populations. These experiences shifted my aspirations to want to serve communities in a more measurable way, which is why I am pursuing a graduate degree. I hope to continue to build upon my current skill set and learn the foundational knowledge of public health nutrition to improve food accessibility and health outcomes, especially among seniors.

In addition to my work, I also love cooking Mediterranean food, hiking, and hanging out with my nephews and niece who live in the area. I am so excited to be joining the MPH Nutrition-65 program and look forward to getting to know my peers and the faculty!



Maura Schwitter

My name is Maura Schwitter, and I am humbled and excited to be starting the MPH-65 Nutrition program! Prior to joining the Harvard community, I worked in finance in New York City for three years. As a pre-medical student in undergrad, I have always been interested in public health, so the MPH-65 program seemed like the perfect next step for me to pair my passion for nutrition and public health with my business background. I am particularly interested in sustainable nutrition and environmental impacts on our access to food, so I found that the Planetary concentration within the Nutrition field of study would be the perfect fit for me. Studying at Harvard's T.H. Chan School of Public Health will provide me the opportunity to work with some of the most impressive academics and peers in the field of public health, and I am honored to be a part of Harvard's legacy of excellence.



Israel Jurado

As a future public health nutrition professional, my mission includes finding innovative ways to improve nutritional status, human rights, and social justice for underserved and marginalized communities, including the Hispanic-Latinx community. I want to incorporate public health efforts to develop holistic, evidence-based, and culturally sensitive solutions for our communities to achieve their fullest health potential. I began my undergraduate studies at Solano Community College and completed my Bachelor's degree in Nutritional Science-Dietetics at the University of California, Berkeley. As an undergraduate student, I worked in various community-based participatory programs/research relating to improving nutrition security and health outcomes through research and health promotion at the Berkeley Food Pantry, Nutrition Policy Institute, Johns Hopkins Bloomberg School of Public Health, UCSF

Children's Hospital of Oakland, and UCSF Osher Center for Integrative Medicine.

In addition to my studies, in July 2020, I completed my clinical nutrition dietetic internship at UCSF Medical Center in adult and pediatric nutrition. Being part of the Harvard T.H. Chan School of Public Health MPH Nutrition program will provide me the skills needed to improve nutrition and preventive health in my community and beyond. While it would be nice to say I am a student at one of the best public health

institutions globally, I believe the most significant accomplishment would be I use the skills I learned to better serve my community by advocating for solutions that support human, social, and healthcare rights. I hope to connect with many of you during my time here in Boston and discuss new ways to improve health for our communities.



Rachel Lee

Hi, my name is Rachel! I'm a Registered Dietitian (RD) and an International Board Certified Lactation Consultant (IBCLC). I chose to come to Harvard due to their interdisciplinary coursework and learning experience. I believe in a multi-faceted approach towards health and Harvard emulates this. As an Integrative and Functional Medicine (IFM) clinician, I am especially interested in the intersection of public health and nutrition guidelines. My main area of focus is the Maternal and Child Health population (MCH), more specifically, fertility through postpartum. As a Korean-American, I have personally experienced the implications of diabetes and want to hone my skills and understanding of this disease in the MCH population. Due to my experience as an IFM RD, IBCLC I have been able to clinically reverse Type II Diabetes in my patient population. I would love to see this implemented into a more systems approach for the population to help people achieve their own best health and lessen the burden of disease for future generations.

I am currently the President of Philadelphia's Academy of Nutrition and Dietetics (PhillyAND), sit on Drexel University's Lactation Advisory Board, and participate in shaping the next generation of practitioners. I hope that my experience in these positions may translate into skills that may shape the next generation of programs and policies for our community to lead towards health resilience and prosperity. I look forward to meeting each and every one of you and growing with you!



Sherri Cuffe

Growing up in a first-generation immigrant Persian family, Sherri has always been passionate about culinary nutrition. After being diagnosed with several autoimmune disorders, Sherri turned her focus towards improving her health through integrative wellness. She founded a health forward, allergen-free baking company and worked with numerous retailers to educate them as to the importance of allergy awareness, as well as the role that these retailers could play in improving access to healthy alternatives. Sherri's goal has always been to help those who suffer from chronic ailments, particularly in underprivileged communities, to improve their quality of life through nutritional intervention. After attending the Teaching Kitchen Research Conference at Harvard and learning about Dr. David Eisenberg's work at the Teaching Kitchen

Collaborative, Sherri immediately pursued a place at Harvard Chan. After her studies, she hopes to have an impact as a public health nutritionist, who directs a teaching kitchen for underprivileged groups, in communities that don't have access to personalized health care.



Jasmine Norris

My name is Jasmine Norris, and I am so excited to be in the MPH-65 program in Nutrition at Harvard Chan. For a few years now, I've looked to the department's *Nutrition Source* as my most trusted repository of nutrition guidance and information for myself and my clients! However, in my recent years as a school dietitian, the various educational materials, news, and research I've come across elsewhere consistently promote foods and brands that are not part of a healthy food system. Why must our children, communities, planet, and even health professionals be subjected to this? I'm so happy to be a part of the Department of Nutrition where we work towards the advancement our food system to its great potential.



Banapsha Rahman

My name is Banapsha Rahman and I am very excited to be joining the MPH 65 Nutrition Program! I am interested in exploring how social determinants of health, such as food, culture and environment, lead to nutrition-related illnesses in Southeast Asian communities. I did not always envision myself pursuing a career in public health. After graduating from John Jay College in 2016 with a BA in Political Science, I went on to work in local government for several years. I was a District Director for a state legislator in Southeast Queens, NY, where I managed day-to-day operations of the district office. Although there was an opportunity to expand my role, I made a difficult decision to leave after three years and shifted my career towards public health. This was largely prompted by the loss of my grandmother, who passed away from severe complications of chronic diabetes. Her death made me reflect on the structural barriers of health that are contributing to the rise of diabetes and other chronic

illnesses in Southeast Asia. Among the many challenges this population is facing, access to quality and healthy food has critically impacted the high rate of disease. I chose to pursue an MPH in Nutrition at the Harvard T.H. Chan School of Public Health because I believe food systems have the potential to support the health of our people. This program combined with my cross-cultural background and past experiences, will prepare me to help bring the voice of vulnerable populations to the policy table and develop culturally appropriate interventions.



Ya Xuan Sun

Hi everyone, I'm Ya Xuan Sun. I am glad to join the MPH-65 Nutrition at Harvard this year. I have a great passion in all areas of nutrition. After obtaining my bachelor's degree in dietetics from McGill University in Canada, I furthered my study in a Masters of Science program at Columbia University to enrich my knowledge in Nutrition and Exercise Physiology. During the pandemic last year, I worked as a clinical dietitian in the acute care as well as in the long-term care in Canada and the United States. This valuable experience made me feel powerless of not being able to help out more to those patients and realize the powerful role of public health in our society. I then took part as a pediatric dietitian at a government-owned health organization under the Ministry of Health in British Columbia, Canada. I was fortunate to have direct interactions with residents of British Columbia and to provide them with nutrition-related guidance in a community setting, prior to my study at Harvard. With a great passion in nutrition and public health, I am eager to sharpen my critical

thinking skill as a public health professional and apply my knowledge to facilitate the health and well-being of the public.

Saloni Gautam

I am enrolled in the MPH-65 in nutrition program at Harvard T H Chan School of public Health. Working in the field of public health in India, I have witnessed up close the very real impact of failures resulting from mismanagement, poor capacity and social inequities is not an abstract concept to me. This is the motivation for my application to this program.

Before joining the program, I worked with CARE, which is an international development organization in India. At CARE, I was part of the public health team responsible for designing and implementing programs to improve the health of women and girls in rural parts of India. We looked keenly at issues like under nutrition, communicable diseases like Tuberculosis and strengthening the primary health systems in rural or tribal areas.

My background in psychology and social work allow me to look at public health through a socio-economic lens, and I would like to apply it while designing programs and eventually policies that reduce inequities especially related to gender and nutrition.

I really enjoy trekking and hiking and I really look forward to exploring the outdoors around Boston.

NEW PhD STUDENTS



Hervet Randriamady

Hervet Randriamady is from Madagascar. He is the first Malagasy to pursue a Ph.D. program at Harvard University. Hervet is currently the research director of Madagascar Health and Environmental Research (MAHERY). He has been working with Dr. Christopher Golden since 2014. Hervet was a Fulbright scholar in 2011 where he received his MS in Agricultural Economics at the University of Arkansas, Fayetteville. He attended the Environmental Leadership Program at the University of California, Berkeley in 2015. Since April 2018, Hervet has been leading longitudinal, community-based epidemiological research in three rainforest communities adjacent to the two largest protected areas in Madagascar. One of Hervet's future research is to see the intersection between food systems, climate change, and mental health in Madagascar. Hervet decided to pursue a Ph.D. in Public Health Nutrition because Madagascar is one of the world's malnourished countries where almost half of kids less than 5 are stunted.



EMILY RISEBERG

My name is Emily Riseberg, and I am a recent MPH from Tufts University currently located in Cambridge, MA. My research interests include cancer, dietary patterns, and epigenetics. This summer I interned at the National Cancer Institute, and prior to that I have conducted research in nutritional and environmental epidemiology. I chose this program because I enjoyed the collaborative and productive environment of the Nutrition department at HSPH when I interned during undergrad. I am excited to be working with Dr. Stephanie Smith-Warner and am looking forward to starting at the end of the month!



KELSEY KINDERKNECHT

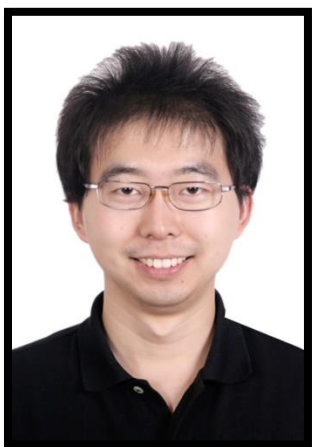
Kelsey is excited to begin the PHS PhD program in Public Health Nutrition at HSPH to gain a rigorous interdisciplinary training in research methods, evaluate the food environment in early childcare and school environments, and learn alongside a robust network of leaders in the public health nutrition field. Kelsey graduated from the University of Washington with a Master of Public Health and is a Registered Dietitian. She has experience implementing nutrition and food literacy programs in schools and evaluating government nutrition policies, including sugar-sweetened beverage policies and policies affecting the National School Lunch Program. Her career goal is to study how the environments in which children live, learn, play and develop influence health and health disparities. More specifically, her research interests include studying the impacts of national, state, and local child nutrition programs and policies on child health and social, emotional, and cognitive development.

In her free time, Kelsey enjoys open water swimming adventures, biking, running, and spending time baking and cooking in the kitchen.



Susan Rattigan

My research interests include how malnutrition in early childhood influences immune system development, and how those changes may impact interventions such as vaccines in populations with high levels of malnutrition. I developed these interests while working two research positions, one with the University of Florida in an academic lab and the other with Epicentre in a non-profit focused on research topics supporting the operations of Doctors Without Borders, where I saw the potential in applying research to operational, on-the-ground problems and questions. I chose Harvard because of the ability to continue those explorations within my research interests, particularly given the emphasis of Population Health Sciences as an interdisciplinary and interconnected discipline that requires input from multiple fields and backgrounds.



Yin Zhang

My name is Yin Zhang, and I am thrilled to be joining the Department of Nutrition as a PhD student. I grew up in Beijing, China. Before coming to the US, I was a clinician and received my MD in my home country after 10-year medical training, including 3-year specialty training in gastroenterology. I completed my MPH at Harvard School of Public Health, and have been working at Brigham and Women's Hospital and Dana-Farber Cancer Institute for the past few years. During my PhD studies. I am keen to cultivate new expertise in nutritional epidemiology and embrace a comprehensive understanding of the biological basis of nutrition, the advanced analytical and quantitative methods of nutritional study, and their applications in exploring the effects of dietary intake in the etiology of cancer. Outside of work, I love traveling, gardening, parrots, saxophone, and composition.

NEWS IN THE DEPARTMENT

HONORS & AWARDS

Dr Edward Giovannucci, Professor of Nutrition and Epidemiology, is speaking at the American Institute for Cancer Research 2021 Conference on November 1-3. The American Institute for Cancer Research (AICR) Research Conference is a unique forum that brings together researchers and clinicians for a program that is dedicated to increasing knowledge, stimulating research and promoting prevention and treatment of cancer and cancer recurrence through nutrition, physical activity and weight management. This year's conference is entirely virtual and will take place from November 1-3, with additional sessions happening on November 10 and 17. For more information, including a list of speakers and pricing, interested parties can visit its website www.aicr.org/conference.

Josiemer Mattei, PhD, MPH, Donald and Sue Pritzker Associate Professor of Nutrition, has been appointed to the Editorial Board of *The Journal of Nutrition*.

GRANTS AND FUNDING

Dr Juliana F W Cohen, Adjunct Associate Professor of Nutrition, has received an NIH R01 award titled "Evaluation of a District-Wide Initiative to Improve School Meal Consumption and Physical Activity Levels among Elementary Students in Anchorage, Alaska". This study will evaluate the effects of a wellness initiative (targeting longer lunch periods and longer recess with integrated physical activity opportunities throughout the day) in Anchorage Alaska, and measure the impact on students' school meal consumption

and physical activity levels, as well as weight status, sleep duration/quality, and factors related to academic performance.

Drs Eric Rimm and **Qi Sun** (as Co-PIs) received a 4-year \$3M grant from NHLBI to study diet, lifestyle, the microbiome and an estimated empirical metabolic endotoxemia index as it relates to Coronary Heart Disease in the Harvard cohorts and the SOL study (Hispanic Community Health Study / Study of Latinos).

Dr Dong (Daniel) Wang, Assistant Professor in the Department of Nutrition, was recently awarded a 5-year R01 grant from NIH. The project title is "*The Gut Microbiome and Personalized Mediterranean Diet Interventions for Cardiometabolic Disease Prevention.*" This project seeks to identify gut microbial features and metabolites that explain inter-individual differences in post-intervention changes in cardiometabolic risk in the DIRECT-PLUS Study and the MIND Study. He and his team will also investigate the effects of combining a Mediterranean diet intervention and autologous fecal microbiota transplantation on the gut microbiome and metabolic risk in an ancillary study of the DIRECT-PLUS Study. This project is expected to provide translational and reproducible evidence for novel, gut microbiome-guided precision dietary strategies for cardiometabolic disease prevention. **Dr Iris Shai**, Adjunct Professor of Nutrition at HSPH, and **Dr Robin Voigt-Zuwala**, Associate Professor at Rush Medical College, will serve as consortium PIs of this project. **Dr Meir Stampfer**, Professor of Epidemiology and Nutrition at HSPH, and **Dr Vincent Carey**, Professor of Medicine at HMS, will serve as co-Investigators. **Dr Frank Sacks**, Professor of Cardiovascular Disease Prevention at HSPH, and **Dr Lisa Barnes**, Professor of Gerontology and Geriatric Medicine at Rush Medical College, will serve as consultants for this project.

PUBLICATIONS

Dr Frank Qian and colleagues have published the following paper in *The American Journal of Clinical Nutrition*. Their study is important because it is the largest study to demonstrate a meaningful protective association between adherence to plant-based diets and incident gestational diabetes, a pregnancy complication that has long-term adverse consequences for the mother and her offspring, which has broad implications for the prevention of cardiometabolic disorders in the population.

Zhangling Chen, Frank Qian, Gang Liu, Mengying Li, Trudy Voortman, Deirdre K Tobias, Sylvia H Ley, Shilpa N Bhupathiraju, Ling-Jun Li, Jorge E Chavarro, Qi Sun, Frank B Hu, Cuilin Zhang, Prepregnancy plant-based diets and the risk of gestational diabetes mellitus: a prospective cohort study of 14,926 women, *The American Journal of Clinical Nutrition*, 2021;, nqab275, <https://doi.org/10.1093/ajcn/nqab275>

DISSERTATION DEFENSES

Scott Richardson, doctoral student, successfully defended his thesis titled "*USDA School Breakfast and Lunch Programs: National Prevalence of Sodium and Saturated Fat Exposure and the Impacts of School Kitchen Infrastructure on School Meal Selection and Consumption*" on Friday, September 24th.

NEW FACULTY APPOINTMENTS

Dr Dong Wang, MD, DSc, has been appointed Assistant Professor in the Department of Nutrition.

Dr Wang is currently a co-mentor for several HSPH postdoctoral fellows. He also provides training and support on data analysis and contributes to manuscript writing. Dr Wang also has many ongoing collaborations with **Dr Deirdre Tobias**, Assistant Professor, and **Dr Kerry Ivey**, Research Scientist, in the Nutrition Department within the Million Veteran Program. It is expected that Dr Wang will teach a new, short winter-session course on nutrition/microbiome research. Dr Wang was also recently awarded a 5-year R01 grant from NIH. The project title is "*The Gut Microbiome and Personalized Mediterranean Diet Interventions for Cardiometabolic Disease Prevention.*"

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 **1:00-1:50 pm** and are free and open to the public. Because of COVID-19, the seminars have been presented via Zoom since March of 2020, and this zoom format will continue for now. A zoom link for viewing will be available one week prior to each seminar.

Our October 2021 speakers will be:

- Oct 4** **Dr Andy Prendergast, MA, DPhil, MRCPCH, DTM&H**, Wellcome Senior Clinical Fellow and Professor of Paediatric Infection and Immunology at Queen Mary University of London & Director of the Zvitambo Institute for Maternal and Child Health Research, Harare, Zimbabwe – *Tackling Nutrition at Both Ends* - NGHP
- Oct 11** **INDIGENOUS PEOPLES DAY**
- Oct 18** **Dr Cindy Leung**, University of Michigan – TBD
- Oct 25** **Dr David Ludwig**, Professor of Pediatrics, HMS; Professor in the Department of Nutrition – *"The Carbohydrate Insulin Model: A Physiological Perspective on the Obesity Pandemic"*

MORE RESEARCH NEWS

Link found between colorectal cancer and diet high in red meat

A recent study designed by **Dr Kana Wu**, Principal Research Scientist, has found that diets high in red and processed meats are linked with colorectal cancer. The researchers found that frequent consumption of red and processed meat is linked with a specific pattern of DNA damage, known as an "alkylating mutational signature," in colorectal tumors.

This "alkylating" damage was caused by specific compounds that are produced in the body after consuming red meat. Wu et al. explain that such mutational signatures are similar to crime scene fingerprints, which allow researchers to trace the origins of the mutations that led to a tumor's formation. They explain that this new discovery may be useful in preventing, detecting, and treating colorectal cancer.

According to Dr Wu, the preservatives in processed meats may contain alkylating agents, which are responsible for the type of DNA damage found in the study. She added that high consumption of red and processed meat is also associated with higher risk of other chronic diseases, such as diabetes and heart disease, not just colorectal cancers.

From: <https://www.hsph.harvard.edu/news/hsph-in-the-news/study-sheds-light-on-link-between-colorectal-cancer-and-diet-high-in-red-meat/>

Read the National Cancer Institute article: <https://www.cancer.gov/news-events/cancer-currents-blog/2021/red-meat-colorectal-cancer-genetic-signature>

Watch Kana Wu's video interview: <https://www.oncologytube.com/video/kana-wu-md-phd-harvardchansph-danafarber-hsphnutrition-colorectal-cancer-research-pattern-of-dna-damage-links-colorectal-cancer-and-diet-high-in-red-meat/page/2?channelName=cancernewsupdate>

NUTRITION SOURCE UPDATES

Spotlight on Aquatic Foods

Foods like salmon, lobster, and shrimp, are often categorized as “seafood.” But how might you classify these foods when including a freshwater fish, such as trout? Consider the term aquatic foods (also called blue foods), which include any animals, plants, and microorganisms that originate in bodies of water. Learn more:

<https://www.hsph.harvard.edu/nutritionsource/aquatic-foods/>

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/>)

POSTDOCTORAL RESEARCH SCHOLAR IN LIFESTYLE, METABOLOMICS, AND LONGEVITY

We have an opening for a full-time post-doctoral research scholar who is interested in research on metabolomics, lifestyle, and longevity to work on a recently NIH-funded project in the Department of Nutrition at Harvard TH Chan School of Public Health. The researcher will review literature on the topic and be primary responsible for conducting statistical analysis, working in collaboration with other researchers in the Department, Channing Division of Network Medicine, and other international groups. This is a two-year full-time post-doctoral position. Award of the second year is contingent upon performance during the first year. Doctorate in epidemiology, nutrition, biostatistics, or related areas is required.

To apply, please send a cover letter, CV, and list of references to mguasch@hsph.harvard.edu.

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 16th Annual Stare-Hegsted Lecture on Monday, November 8, 2021, from 1:00-2:15 pm.*

Dr. Shiriki K. Kumanyika, PhD, MS, MPH, Research Professor, Community Health and Prevention, Drexel University, will be this year's speaker. She is Founder and Chair of the Council on Black Health (formerly the African American Collaborative Obesity Research Network (AACORN)). CBH is a national network that seeks to have a significant impact on health in Black communities through collaboration, discovery, and innovation. In addition to her Drexel affiliation, Dr. Kumanyika retains an appointment as an Emeritus Professor of Epidemiology at the University of Pennsylvania (Penn). She was the founding director of Penn's Master of Public Health program.

Dr. Kumanyika's research has focused on identifying effective strategies to reduce nutrition-related chronic disease risks, with a particular emphasis on achieving health equity for black Americans. Over more than three decades, she led or collaborated on single- or multi-center randomized clinical trials or observational studies related to obesity, sodium intake, and other aspects of diet and lifestyle. Several of these studies evaluated interventions to promote healthy eating and physical activity in black children or adults in clinical or community-based settings. Her recent research with Council on Black Health colleagues has included studies of the targeted marketing of unhealthy foods and beverages to black children and adults and food price influences on food purchases of black household food shoppers.

Dr. Kumanyika was Vice-Chair of the HHS Secretary's Advisory Committee on Healthy People 2020 objectives and is also involved in efforts to develop Healthy People 2030. She is a past president of the American Public Health Association and a member of the National Academy of Medicine (NAM, formerly known as the Institute of Medicine (IOM)). Dr. Kumanyika has extensive experience in advisory roles related to public health and nutrition policy in the US and abroad. She is currently chair of the NAM Food and Nutrition Board, a member of the CDC Task force on Community Preventive Services, Co-chair of the Policy and Prevention Section of the World Obesity Federation, a member of the Lancet Commission on Obesity, and a nutrition policy advisor to the World Health Organization and the World Cancer Research Fund.

***This will be a Zoom presentation. Should current Covid restrictions be lifted by that time, Dr Kumanyika will deliver her lecture in person, time and venue TBD.**

MARK YOUR CALENDARS NOW!

Member-led short conference: Plant-rich dietary patterns and health



Online
4 - 5 October 2021

[Register >](#)

[Overview](#) [Programme](#) [Event Details](#) [Fees](#)

Scientific Programme Organisers: Professor Jayne Woodside, Queen's University Belfast.

Dietary patterns rich in plant foods are associated with improved health and reduced non-communicable disease risk. Fruit and vegetables (FV) are a cornerstone of healthy dietary recommendations. FV include a diverse collection of plant foods that vary in their energy, nutrient, and dietary bioactive contents. FV have potential health-promoting effects beyond providing basic human nutrition needs in humans, including antioxidant and anti-inflammatory effects, yet current global intakes of FV are well below recommendations. Given the importance of FV for health, interventions that promote FV intake are warranted.

This online meeting, conducted over two half days, will present the latest research findings exploring plant-rich dietary patterns and health, including epidemiological analysis of plant-rich dietary patterns and health outcomes, the effects of dietary interventions which have increased FV intake on a range of health outcomes, how adherence to plant-rich dietary patterns is assessed, the use of biomarkers to assess FV intake and a consideration of how modifying behaviour towards increased FV intake could impact on environmental outcomes, and food systems.

Registration is now open.