



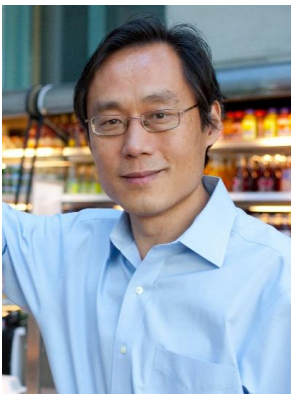
NUTRI NEWS

The Department of Nutrition

March 2020

To subscribe to NutriNews, please contact Hilary Farmer, Editor: hfarmer@hsph.harvard.edu

FROM THE DEPARTMENT CHAIR



Dear Members of the Nutrition Department,

First, I want to take this opportunity to express my deepest gratitude to all of you for your efforts during these unprecedented times to go the extra mile. Not only have we had to ramp down our research labs, but we've also found it necessary to quickly learn to bootstrap in a sudden transition to remote learning and teaching activities. I fully appreciate the challenges this has posed for our instructors, TAs and students. In addition, almost our entire department is working remotely now, and I understand the disruption this may have caused in your daily lives as you begin to balance working at home full-time with caring for children and coping with other family obligations (not to mention feelings of loneliness and isolation).

Since this current situation has undoubtedly caused you a lot of stress and anxiety, we have begun to compile a list of information and resources as we collectively make it through this time of isolation and halted research. Our *NutritionSource* website has begun to compile a few tips for healthy eating and personal safety (see: <https://www.hsph.harvard.edu/nutritionsource/2020/03/25/food-safety-nutrition-and-wellness-during-covid-19/>), and this page will be continuously updated as more information becomes available. Other resources are listed below.

These are indeed unprecedented and challenging times for our community, nation and the world. and I want to thank you all for your unwavering commitment and resilience - we are all in this together!

Sincerely,

Frank Hu

"SHUTDOWN" ACTIVITIES

Along these lines, we encourage you to mimic your research group's regular activities as much as possible. For instance, regular lab meetings, 1:1 meetings, and journal clubs via Zoom. You can even have a virtual Happy Hour! And some research teams have started What's App or Slack groups to keep

in touch. We encourage each trainee to work on a development plan during the closure to engage in learning and productive time for your individual projects.

ONLINE LEARNING

We all strive to make the time away from the School and labs one of productivity and growth. All members of the Harvard community have access to **LinkedIn Learning (formerly lynda.com)**. It can be accessed through, <https://linkedinlearning.harvard.edu> This site offers:

- Access over 15,000 on-demand courses on computer software, business skills, and creative skills
- Learn from industry experts through courses that can be accessed from any device
- Keep your skills current with dozens of new videos each week with up-to-date content
- Discover bite-sized learning with 10-minute videos on key topics across many subjects
- Customize your learning path through curated collections or by saving your favorite videos
- Download exercise files to follow along with as you watch tutorials

Your supervisor can help to advise regarding trainings that could be useful for your role.

OUR COMMUNITY RESPONSE

So many of us are wondering what we can do to help and contribute to combating the COVID-19 virus. Some of our labs have generously offered much needed supplies to the local hospitals. Attached is another example of our Harvard community contributing to understanding of the virus. It is medical student COVID-19 curriculum that a group of 35 HMS MD-PhD students put together in the past few days. It covers basic science, clinical management, epidemiology, testing, therapeutics, vaccines, the current state of the epidemic in MA, and how to talk to family and friends about COVID-19.

Department of Nutrition faculty are contributing to the Nutrition Source to disseminate information out to domestic and international audiences. As noted above, this information will be regularly updated: <https://www.hsph.harvard.edu/nutritionsource/2020/03/25/food-safety-nutrition-and-wellness-during-covid-19/>),

HARVARD RESOURCES

We want to make sure that everyone is staying informed regarding Harvard policy, practices, and support being offered related to the virus and campus shutdown. Please see links below. As always, please feel free to our to Frank Hu or Katrina Soriano for support and resources during this challenging time.

- Harvard University [Coronavirus \(COVID-19\)](#)
 - Mental Health Resources: <https://www.cdc.gov/coronavirus/2019-ncov/about/coping.html>, <https://www.health.harvard.edu/blog/coping-with-coronavirus-anxiety-2020031219183>, <https://camhs.huhs.harvard.edu/> (students)
 - Research and Labs Preparedness for COVID-19 <https://www.ehs.harvard.edu/research-and-labs-preparedness-covid-19>
- HSPH Office of Communication [COVID-19](#)
- Sponsored Guidance [FAQs](#) for COVID-19 have been posted on the OSP website
- OVPR [COVID 19 and Research Operations](#)
- [Travel Cancellation & Reimbursement Regarding the Coronavirus Disease 2019 \(COVID-19\)](#) has been updated.
- Human Resources [enhanced workplace policies](#)
- Information Technology [remote readiness](#)

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NEWS FROM AROUND THE NUTRITION DEPARTMENT

AWARDS AND RESEARCH PRESENTATIONS

Frank Qian, MPH student, was recently awarded the Trudy Bush Fellowship Award for Cardiovascular Disease Research in Women's Health at the American Heart Association EPI|Lifestyle 2020 Scientific Sessions, for his abstract "Healthy Lifestyle Factors and Cardiovascular Disease Risk in a Prospective Cohort of Women with a History of Gestational Diabetes Mellitus". Other Department of Nutrition co-authors that contributed include **Drs Jorge Chavarro, Frank B. Hu, Qi Sun, and Deirdre K Tobias**.

Jun Li, Research Scientist, received the *Scott Grundy Fellowship Award for Excellence in Metabolism Research* at the 2020 American Heart Association Epi | Lifestyle Scientific Sessions that was held in Mar 3-6 2020 at Phoenix, for her study titled "*Interplay Between Diet and Gut Microbiota, and Circulating Levels of Trimethylamine N-oxide: Findings From the Men's Lifestyle Validation Study*".

Xiaoran Liu, Research Associate, was elected Fellow of the American Heart Association (FAHA) conferred by the Council on Lifestyle and Cardiometabolic Health (LIFESTYLE). Fellowship recognizes and awards premium professional members for excellence, innovative and sustained contributions in the areas of scholarship, practice and/or education, and volunteer service within the AHA/ASA.

Laura Zatz, doctoral student, presented at the Healthy Eating Research Annual Grantee Meeting in Denver on March 5, 2020. Her presentation was titled "Comparing shopper characteristics and the food group composition of groceries purchased online versus in-store".

Dr Erica Kenney, Assistant Professor of Public Health Nutrition, presented on work that she and doctoral student **Mary Kathryn Poole** have been doing on the implementation of child care licensing policies that promote healthy eating at the Healthy Eating Research Annual Grantee Meeting in Denver on March 5, 2020.

Aviva Musicus, doctoral candidate in Nutrition, presented at the Healthy Eating Research Annual Grantee Meeting in Denver on March 5, 2020. Her presentation was titled "Reducing the Impact of Deceptive Front-of-Package Beverage Marketing".

Dr Julianna Cohen, Adjunct Associate Professor, had an invited "lightening round" talk on "*How To Move Forward When Policy Progress Is Undone*" at the HER meeting in Denver in March. She also gave an oral presentation on "*The Role of Parents and Children in Meal Selection and Consumption in Quick Service Restaurants*" (research in collaboration with **Professor Eric Rimm**) and a poster presentation on "Availability and Students' Consumption of School Meals Meeting the USDA's Lower Sodium Targets" (also in collaboration with **Eric Rimm**)

DISSERTATION DEFENSES

You Wu will defend her doctoral dissertation titled "*Lifestyle risk factors and risk of breast cancer overall and by subtypes defined by hormone receptor status*" on April 23, 2020.

Jake Beckerman-Hsu will defend his doctoral dissertation titled "Family- and Program-Level Approaches to Understanding and Addressing Obesity Among Preschool-Aged Children Attending Head Start" on April 30, 2020. This will be a Zoom meeting: (<https://harvard.zoom.us/j/9892606662>).

Simone Passarelli will defend her doctoral dissertation titled "Agricultural interventions, caregiver perceptions, and child growth in rural Ethiopia" at 11 am on April 13, 2020. This will be a Zoom (Meeting ID: 327 974 1413).

Aviva Musicus, Doctoral Candidate in Nutrition, successfully defended her dissertation titled “*The Influence of Food Environments on Chronic Disease: Evidence for Policy Change*” on March 30, 2020.

DR LILIAN CHEUNG DISCUSSES BENEFITS OF MINDFULNESS AND MEDITATION DURING THESE CHALLENGING TIMES

Interviewed by Hilary Farmer, Editor of NutriNews



Dr Lilian Cheung is Lecturer and Director of Health Promotion & Communication at the Harvard T. H. Chan School of Public Health’s Department of Nutrition. She is the Editorial Director of *The Nutrition Source*, the school’s nutrition website for health professionals, media and consumers. She also serves as co-editorial director of the *Obesity Prevention Source*, a website providing science based information for policy changes at the community level, as well as the *Asian Diabetes Prevention Initiative*, a website providing research-based evidence for policy makers and public with the goal of reversing the spread of type 2 diabetes in Asia. Her work focuses on the translation of science-based recommendations into public health communications and programs, to promote healthy lifestyles for chronic disease prevention and control.

Dr Cheung is the co-Principal Investigator and co-author of *Eat Well & Keep Moving* (2001, 2nd edition 2007, 3rd edition 2015), a globally disseminated school-based nutrition and physical activity program for upper elementary school children. She is a Co-Investigator at the CDC Harvard Prevention Research Center on Nutrition and Physical Activity. Her latest book [*Savor: Mindful Eating, Mindful Life*](#) (2010, 2011) co-authored with Zen master, Thich Nhat Hanh, is in 17 languages.

She earned her MS in Nutrition and DSc in Nutrition at the Harvard School of Public Health, and received the 2019 Alumni Award of Merit in recognition of her efforts.

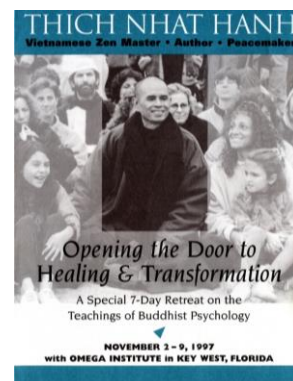
NN: *Dr Cheung, you have made quite a name for yourself as a leader in both mindfulness and meditation practices. How did you become interested in these subjects in the first place?*

LC: I was commuting to Baltimore once every 2 weeks from 1993-1997 for our research project with Baltimore Public Schools, *Eat Well & Keep Moving*, which was aimed at launching a nutrition and physical activity curriculum and to improve foods offered at schools. My youngest son Tim was only 4 at the time. During these years, my to-do list became longer and longer, and I was totally stressed out and losing sleep with all sorts of worries! It was the first multi-million dollar grant that the Walton Family Foundation gave to Harvard University, and there were a lot of expectations from the funders for it to be successful.

However, Baltimore Public School was very resistant to change and we ran into constant roadblocks. In 1994 during a graduation party for my second son, one of my best friends, **Susan Guillory** (who co-founded *Bread & Circus*, the natural foods supermarkets, and member of the Nutrition Roundtable Steering Committee) noticed that something was wrong with me. I told her that I wasn't sleeping well because of tremendous stress from this project. She pulled me into her meditation group and said that meditation will help me. After just one session with her group, I slept soundly like a baby. That was my first experience with meditation!

Subsequently, one night over dinner, my oldest son who was then in middle school was trying hard to share with my husband and me the challenges he was facing at school. However, my mind was somewhere else, being totally preoccupied with work. And suddenly I heard him say: "**Knock, knock Mommy. Are you there?**" That pierced my heart and woke me up. I knew I needed to change. I got my first taste of the transformative effects of meditation and mindfulness in 1997 when I attended a retreat with my friend **Barbara Lind** (another member of the Nutrition Roundtable) in Key West led by Thich Nhat Hanh entitled *Opening the door to healing and transformation*. I had no expectation of where it would take me, but in retrospect, it changed my life almost immediately.

The weeklong retreat with Thich Nhat Hanh and his monastics was attended mostly by psychotherapists, physicians, and professional caretakers. I witnessed incredible transformation of some participants from sadness to joy. For myself, I had two entire days without stress. This feeling of total serenity was a stark contrast from the way I had been feeling throughout my life. For me, it opened the door in helping me transform my way of being. His teachings led me to live peacefully while fulfilling my life's purpose in humanitarian endeavors in public health.



NN: *You have also been a student (and later a close friend) of Nobel Peace Prize- nominated Vietnamese Buddhist monk Thich Nhat Hanh since the late 1990s. Can you tell us about some of your collaborations with him and describe some of the ways in which he has really influenced your work?*

LC: I grew up in a very strict traditional family environment in Hong Kong where Confucian principles were the rule – to respect parents and the elderly. Children are not supposed to speak up nor be critical of elders. Hence, it was very difficult for me to speak up and express my viewpoint. When I started commuting to Baltimore for the *Eat Well & Keep Moving* study, I was extremely stressed with juggling a career that required regular travel, being respectful to my parents' expectations, and having my own family with 3 young sons. I was always multi-tasking, tense, and hypervigilant. I was a perpetual worrier with a lot of "what ifs" in my head.

I was completely changed as I started learning from Thich Nhat Hanh, attending his annual retreats in the US, and practicing diligently every day. I am deeply grateful to Thich Nhat Hanh and the way he taught. As another great American Buddhist master teacher Jack Kornfield said:

Thich Nhat Hanh is a Zen Master, Buddhist icon...a great teacher of the heart of the dharma that is embodied in his presence, and brings the gift of awakening...to so many people over the decades. One of his greatest gifts is that he can make the most profound teachings of Buddhism widespread into a simple form. As a monastic, as a poet, as an artist and an activist, he took the profound teachings of the Buddha and talked about breathing simply and talked about being at peace, and about peace in every step. How you take a step, how you hold a cup of tea. He did it not only with his words in his beautiful books but also did it in his presence – his walking meditation is powerful and memorable to all retreatants.



Thich Nhat Hanh is very practical, learned, humorous, wise, humble, patient, and resilient. He is fluent in seven languages: French, Chinese, Sanskrit, Pali, Japanese, English and his native Vietnamese. I take so much delight in communicating with him in written Chinese. There are so many important concepts from his teachings that can help us to be happier and feel more fulfilled about life.

I remember well the 2013 Harvard Medical School Meditation & Psychotherapy conference. I, along with Dr. Jon Kabat Zinn (a world-renowned scientist in mindfulness) and 2 other psychotherapists, were each invited to ask Thich Nhat Hanh a question. I asked him what was the most challenging incident in his life, and how he managed it. He said that it was about the bombing of a village in North Vietnam. After the first bombing by the American Air Force, he and his monastics helped clear and rebuild the village. Then, the village was bombed again and they helped rebuild again. They also helped rebuild when the village was bombed for the third and fourth times. When the village was bombed for the fifth time, his monastics and volunteers were about to give up. But Thich Nhat Hanh said: "We cannot have despair" and he led the monastics and volunteers in rebuilding the village again which ultimately survived five times of bombing.

Rooted in Buddhism, Thich Nhat Hanh teaches in a contemporary way about the reality of life that all of us have suffering. None of us can escape from it. However, by identifying the causes of our suffering, we can find paths to free us from suffering.

He also talks about our *Habit energy* that keeps us from doing the right things, such as anger, worry, hate, discrimination, and anxiety. He teaches that we have to be present and mindful to be able to notice that these habits are not serving us well.

An important concept that he teaches is the concept of *interbeing*: that we are all connected, and no one has a separate self. What we do will ripple out to our world. The Coronavirus is an important reminder that we are dependent on something bigger than we think. Covid-19 has stopped us in our tracks and reminded us about the world that we have been living in: the abundance of freedom, health, goods, and services that we most likely have taken for granted as we are pre-occupied with daily tasks and goals. The virus helps to stop us in our routine business of overlooking what are critical aspects of our lives: that without transformation of our society and the way we eat and live, climate change could bring starvation, destruction, disease, and war. As Howard Kunreuther and Paul Slovic wrote in *Politico*:

If there's any silver lining in this mess, it's that the coronavirus pandemic is teaching us a valuable lesson about the perils of ignoring destructive processes—and perhaps even larger, longer-term disasters—that increase exponentially. Even if growth looks mild in the moment—think of the earliest segments on an exponential curve like the red line shown in the illustration above—it will soon enough be severe. In other words, delay is the enemy.

We need to remember that how we treat our natural world affects our wellbeing, and that we have the ability to change and that is possible to create a more just, peaceful, and sustainable earth for the future. Another key teaching from Thich Nhat Hanh is that the art of happiness is to be able to live deeply in the present moment: "As soon as we realize that in this very moment we already have enough, and we already are enough, true happiness becomes possible." During my first retreat with him, he asked all the retreatants go back to their residence and spend an afternoon reflecting on a few questions about *Happiness*:

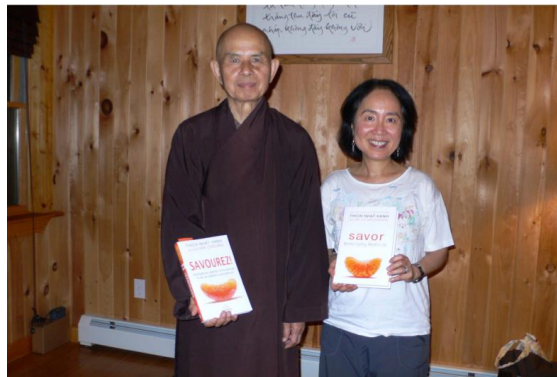
1. What conditions do I think I still need to be happy?
2. If the conditions can never be realized, would I be unhappy all my life? If so, what would I do about it?

3. Write down the elements of happiness that is available in the present moment. What makes me happy right now.
4. What kind of arrangement can I make to recognize the elements in my daily life to benefit from them?
5. For what is not to my liking now, what can I do to make it more acceptable to me?

It was a very powerful exercise. I realized that I had 36 elements of happiness in my life that are available to me in the present moment. Most of us stream through life so fast without pausing to be able to recognize them. Advertising propels us to want more so that we can be happier. The speed of our living prevents us from being able to feel grateful about what we already have in our lives. Thich Nhat Hanh emphasizes that the fundamental skill we need to learn is to be mindful so that we can be fully aware of our how our body is functioning, our feelings, what is in our mind, and all that is happening around us.

NN: How have you and TNH bridged the gap between nutritional science and ancient Buddhist wisdom regarding healthy eating and weight management?

LC: I was so blessed to have an opportunity to coauthor a book with Thich Nhat Hanh on Mindful Eating (below) that has been published in 17 different languages.



I had no idea what Mindful Eating was until my first 7-day retreat with him in 1997. I did not have any education about *Mindful Eating* during all the years of my university education. During the week-long retreat, we learned only 3 things: *Mindful Breathing*, *Mindful Walking* and *Mindful Eating*. He asked us to call him “Thay” – Vietnamese for teacher. He taught us about the importance of practicing mindfulness which can be fully integrated into everything that we do daily. Basically, it is *Monotasking* in contrast to what is currently prevalent in our world, *Multitasking*.

One very important aspect that I learned from my first retreat with Thay is the concept of *Mindful Eating* - *eating for our health and the health of our planet*. In 1997, food sustainability was not a topic that people were aware of at all. It was through the retreat that I was informed of our need to eat sustainably in order to have enough food for future generations. Now, food sustainability has become a very important public health issue as summarized by the 2019 *EAT-Lancet* report.

Another important aspect of mindful eating is the recognition that the entire universe is involved in enabling us to eat whatever we have for our meal. As Thay stated in *Savor*: The apple in your hand is the body of the Cosmos. To be able to eat an apple, we need the sunshine, the rain, fertile soil, farmers, the healthy apple tree, the truck drivers, the store keepers, and so forth.

In all his talks, Thay did not elaborate on what *eating for our health* is. After attending his retreats yearly from 1997 onward, I decided in 2009 to write a book on mindful eating to include the scientific basis of healthy eating. I approached Thich Nhat Hanh to ask him to write the Forward for me (which he had done for numerous authors but rarely co-authored with anyone). When I visited to show him my book outline, to my own surprise I spontaneously asked him: Thay, I will be citing you every other page, why don’t you write this book with me?” My husband was sitting next to me—shocked, as he could not believe that I dared ask a world-famous Zen master to co-author with me. Thay had a long pause and then he turned to me and said, *Why not?! I was totally stunned!*

Another big surprise is that when I asked **Dr Walter Willett** to review our book manuscript and asked him for an endorsement of the book (I was a bit nervous as I was co-authoring a book with a Buddhist monk). Walter took a look at the cover page and said, "I know Thich Nhat Hanh! I invited him in 1968 to my medical school to speak up about the need to protest against the Vietnam War!" I was shocked and pleasantly surprised.

I searched the scientific literature on mindful eating but in 2009 there were very few studies conducted on mindful eating except in the area of binge eating. With the toxic food and media environment, and the tendency of people to multi-task and eat on the run, mindful eating in the 21st century is an important concept to embrace, practice, and investigate. Since 2009, research on mindful eating has expanded to address weight management, diabetes, and cardiovascular disease.

NN: *How would you define "mindfulness"?*

LC: According to Thich Nhat Hanh, mindfulness is about living in the present moment: Bringing one's full attention to what is happening in the present moment, seeing things as they are with awareness, clarity, and equanimity. It is about monotasking; doing only one thing at a time. The essence of Thay's mindfulness training is that we take ordinary, everyday actions and train ourselves to do them one at a time, in full awareness from beginning to end. It could be taking our first step of the day, turning the light on and off, brushing our teeth, putting on our clothes, drinking our tea or coffee, and so on.

By bringing mind and body together like this we become more present for life. As we complete each act fully, we develop a deep sense of satisfaction and wellbeing. Each moment feels more joyful and blessed. To be fully aware, conscious, and to cultivate this wonderful energy of mindfulness, we need to stop from time to time. By creating stopping points in our busy schedules, we have a chance to anchor our self into the practice of mindfulness, to return to our sanctuary of peace that is always there inside us. Knowing what mindfulness is is just the beginning. Practicing mindfulness from moment to moment is the ultimate goal. What Thay teaches is that mindfulness can be fully integrated in everything we do during our waking hours including walking, listening, and washing dishes.

When we walk, walk mindfully. Just walk. Do not think of our projects, deadlines, or agenda for our next meeting as we walk from one room to another. Walking mindfully can give us solidity. Walk as if you are a lion. Every step you take is attentive, allowing your feet to kiss the ground. Walking this way will free ourselves from worries, anxiety, and nervousness. When someone talks to us, just listen deeply without jumping to figure out what our response will be. This way, we can understand much better what the other person is trying to convey to us and not just impose our own views on a certain subject.

Washing dishes used to really be a drag for me, especially after a long day. But since I learned from Thay that when we wash dishes, wash as if we are washing a baby with mindfulness, I found that this chore has become my favorite calming activity after dinner!

Throughout the day, our attention is constantly drawn to many areas of knowledge, to-do lists, discussions, text messages, or emails. Just taking a few breaths, as little as ten in-breaths and out-breaths periodically throughout the day can refuel our brain, making it sharper and more lucid.

NN: *Dr Cheung, you have also led some meditation groups, both in-person and in online videos. Why do you stress the importance of meditation in our lives so much—and why now, especially?*

LC: The research on the benefits of mindfulness on health is becoming more and more robust and diverse. Searching PubMed, there were only three scientific studies published in 1999 about mindfulness; from year 2000 to now, there are six thousand studies published on mindfulness. Mindfulness not only helps to manage our stress, but science has also indicated that it prevents the recurrence of depression and anxiety, improves mental health, positively affects the psychology of cancer patients, relieves lower back pain, lowers blood pressure, and positively improves the quality of life for patients with

neurodegenerative diseases such as Parkinson's disease, Multiple Sclerosis, and fibromyalgia. There is also promising evidence that suggests benefits of mindfulness in a range of physical health conditions including diabetes, obesity, and eating disorders.

It is also interesting to note that the latest research on happiness indicates that both mindfulness and gratitude are two important factors determining happiness. And, these two factors are predominant in Thich Nhat Hanh's teachings.

In a 2019 article on *Mindfulness and physical disease: a concise review*, Drs. Jeffrey Greeson and Gabrielle Chin said that "The consistent well-being and quality of life benefits that results in mindfulness training indicates that mindfulness is particularly well-suited as a complementary (adjunct) treatment to traditional allopathic medicine, given its ability to promote self-awareness, self-care, self-regulation, and self-management of disease."

With the aging of our population, there is also growing interest in using mindfulness in palliative care to support those who are dying and their relatives and health care staff, potentially improving the quality of end-of-life care.

NN: *I understand you were organizing a mindfulness symposium here at HSPH before the coronavirus hit. Will that take place in the future?*

LC: Yes, definitely! Once our School reopens allowing physical presence, the Dean's office will set a date to launch it again.

NN: *Do you plan on conducting a study with Professor Ivan Perry in Ireland, and what will you be investigating?*

LC: Yes. I learned about **Professor Ivan Perry's** research in worksites in Cork, Ireland when **Dr Walter Willett** invited him to speak at our departmental seminar in April 2019. His summary slide contained two words: *interconnectedness* & *interdependency* that revealed to me that he may be a student of Thich Nhat Hanh as Thay uses these words a lot in his teachings. I immediately went up to Professor Perry after his talk and asked him if he knows who Thich Nhat Hanh is. He said, "Of course! I have been reading his books for years but I never met him nor have gone to any of his retreats." When I told him I co-authored a book with Thich Nhat Hanh, he was amazed. Subsequently, we met and thought it would be wonderful to conduct a study on mindful eating and mindfulness with his worksite in Ireland. I went to University College Cork last summer and met with his co-principal investigator, **Dr. Fiona Geaney** to discuss a collaboration to conduct a pilot study in Cork. We are in the midst of developing a proposal. In November 2019, Professor Perry actually went to Thich Nhat Hanh's European Institute of Applied Buddhism in Germany and got mindfulness training for one week.

NN: *Some of your earlier experiences concern your work as a consultant to the Boston Ballet. Ballet is a highly disciplined art and requires dancers to be very mindful in their executions of all its intricate steps. Has this been any kind of precursor to your present focus on mindful practices?*

LC: The administrators at the Boston Ballet were quite concerned about their ballet students especially those enrolled in the summer school. They recognized that there is tremendous pressure for them to be thin, to conform to the "emaciated look" and many became anorexic. I was asked to give lectures on nutrition to help them develop healthier eating habits. That was in the early 1980s. The experience at Boston Ballet did not prompt me to my present focus on mindful practices. I had no idea of what mindfulness is at that time.

NN: *I found it interesting that you were at one time a classmate of Gerald Chan. Would you care to comment on this?*

LC: When I started my master's program at HSPH in 1973, there were only three Chinese in our whole class: **Gerald Chan, Lee Chin** (whom I married in 1975) and myself (see photo below). I actually knew Gerald from our high school in Hong Kong as we were enrolled in the same school, St. Paul's Co-Educational College. I also knew his father, **TH Chan**, and his mother who is a very good artist. Gerald was quite famous even during high school as he is a fantastic orator. I still remember one of his performances in a morning assembly where he recited a poem. It was very impressive!

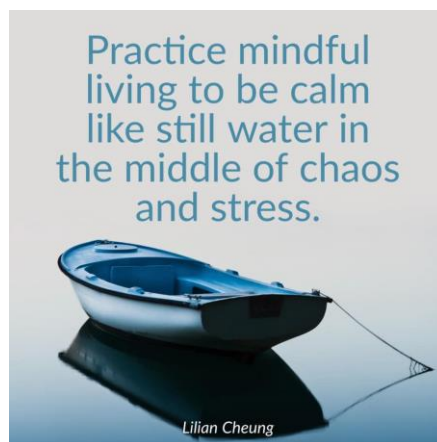


Lee Chin, Lilian Cheung, and Gerald Chan

NN: *In your own words, your career has not exactly been a straight line. What advice and words of wisdom would you offer a young person just starting out in his/her career?*

LC: Find good mentor(s). Cultivate friendships that can support you throughout the ups and downs of life. Practice mindfulness as a way of life. Mindfulness helps you to be aware and awake about yourself, how you are feeling in body and mind, how the external forces are affecting you both positively and negatively. It also helps you to know your strengths and weaknesses and be grateful for all that you have. Being calm like still water during a crisis can help you arrive at a solution. Have a lazier day periodically and re-connect with nature. Remember, life is full of sufferings & obstacles, but there is always a way out when we can be mindful and awake.

Here's a link to a short meditation that I led recorded by HSPH: <https://www.youtube.com/watch?v=8c-1Ylieg3g>



New Faces in the Department!



Rebecca Mozaffarian MS, MPH
Project Manager

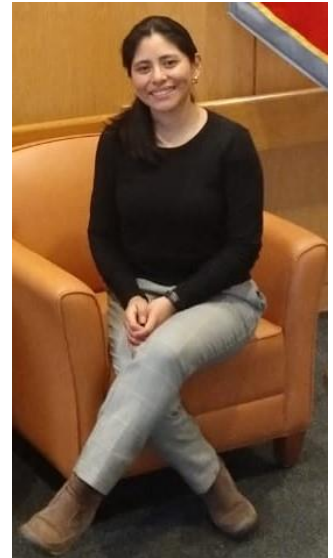
I am thrilled to once again join the HSPH Nutrition Department! I have Masters of Science in Food Policy and Applied Nutrition and a Masters of Public Health in Epidemiology from Tufts University. For the past 14 years, I have been working at the Prevention Research Center in the Department of Social and Behavioral Sciences. In my new role as Project Manager, I will be working with **Dr Erica Kenney** on a variety of projects, including evaluations of community-based intervention strategies to improve foods and beverages served in child care, analyses of policies affecting child health, investigations of nutrition policy implementation in school and child care settings, and analyses of child behaviors and the impact on their health. I will also be working with **Dr Lilian Cheung** and other team members in developing and writing content for the Obesity Prevention Source.

I worked in the Nutrition Department from 2004-2006 coding food frequency questionnaires, helping to maintain and update nutrient databases, and reviewing dietary assessment tools. I met my husband in the Nutrition Department over a plate of salmon in the kitchenette, and we now have 3 kids (ages 11, 9, and 7 years old). I love traveling, hiking, camping, and spending time with my family. It has been wonderful being welcomed back to the Department!

Katherine Curi Quinto, PhD
Visiting Research Student

Katherine is completing her PhD in nutrition population at the National Public Health Institute of Mexico. She is currently working on her doctoral thesis at Harvard T.H. Chan School of Public Health under the mentorship of **Professor Walter Willett**. The aim of her thesis is to assess the sustainability of food consumption in the Mexican population. She is integrating indicators of diet quality, diet cost, and the environmental impact of diets, and identifying their related sociodemographic characteristics.

Katherine has significant experience conducting research and community interventions to prevent malnutrition and non-chronic diseases (NCD) in vulnerable populations and using stable isotopic techniques as nutrition indicators. Prior to pursuing her PhD, she founded the Research Group on Nutrition and Sustainable Food Systems to promote more sustainable diets in Peru. She has conducted projects to identify early risk factors of NCD among children and adolescents in Latin America, with the University of Chile, local authorities, and the nutrition division of the International Atomic Energy agency (IAEA).



Katherine is part of the Latin American Network of Nutrition Leaders and the Emerging Leaders Network of the World Heart Federation. She holds a bachelor's of nutrition from the National University of San Marcos of Peru and a master's in public nutrition and chronic disease prevention from the Institute of Nutrition and Food Technology at the University of Chile.

Faculty Appointments and Reappointments

Juliana Cohen, ScD, has been reappointed as Adjunct Associate Professor of Nutrition.

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** and are free and open to the public. Due to coronavirus concerns, the seminars will be presented via Zoom for the rest of the spring semester. A zoom link for viewing will be available one week prior to each seminar.

The following speakers will present their work in April:

- Apr 6:** **Dr Laila Al Shaar**, Postdoctoral Research Fellow – “*Reproducibility and Validity of a Semiquantitative Food Frequency Questionnaire in Men’s Lifestyle Validation Study.*”
- Apr 13:** **Dr Marco Springmann**, Senior Researcher on Environmental Sustainability and Public Health, Oxford, Martin Programme on the Future of Food, Centre on Population Approaches for Non-Communicable Disease Prevention, Nuffield Department of Population Health, University of Oxford – TBD.
- Apr 20:** **Dr Marta Guasch-Ferre, PhD**, Research Scientist, Department of Nutrition – “*Olive oil consumption and cardiovascular health.*”
- Apr 27:** **Dr Ajit Varki**, Distinguished Professor of Medicine and Cellular & Molecular Medicine; Co-Director, UCSD/Salk Center for Academic Research and Training in Anthropogeny; Co-Director, Glycobiology Research and Training Center, University of California, San Diego – TBD.

For more information, contact: hfarmer@hsph.harvard.edu

MORE NUTRITION NEWS

Moderate Egg Consumption is Not Associated with Increased CVD Risk

A recent study and meta-analysis published in *BMJ* has found that eating up to one egg per day was not associated with a higher risk of cardiovascular disease. According to first author **Jean-Philippe Drouin-Chartier**, a former postdoc in the Department of Nutrition and Assistant Professor at Laval University in Québec, Canada, “Recent studies reignited the debate on this controversial topic, but our study provides compelling evidence supporting the lack of an appreciable association between moderate egg consumption (up to 1 egg per day) and cardiovascular disease.”

The relationship between egg consumption and CVD risk has been a topic of intense debate in the scientific community in recent decades. Just in the past 12 months, three published studies have reported conflicting results.

The new findings update a 1999 study—the first major analysis of eggs and cardiovascular disease—that found no association between eggs and CVD risk. That study was led by **Frank Hu**, Fredrick J. Stare Professor of Nutrition and Epidemiology, Chair of the Department of Nutrition, and a co-author of the current study. In Hu's study, researchers analyzed health data from 173,563 women and 90,214 men participating in the Nurses' Health Study (NHS) I and II, and the Health Professionals Follow-Up Study (HPFS) who were free of CVD, type 2 diabetes, and cancer at baseline. The authors' analysis of NHS and HPFS participants found no association between moderate egg consumption up to 1 egg per day and risk of CVD. Results from the meta-analysis supported this finding in U.S. and European populations; however, some evidence suggested that moderate egg consumption may be associated with lower CVD risk in Asian populations although this may be confounded by the overall dietary pattern.

Study co-author **Shilpa Bhupathiraju**, Research Scientist, said that while moderate egg consumption can be part of a healthy eating pattern, it is not essential. "There is a range of other foods that can be included in a healthy breakfast, such as whole grain toasts, plain yogurt, and fruits."

"Egg Consumption and Risk of Cardiovascular Disease: Findings from Three Large Prospective US Cohort Studies and a Systematic Review and Updated Meta-Analysis," Jean-Philippe Drouin-Chartier, Siyu Chen, Yanping Li, Amanda Schwab, Meir Stampfer, Frank Sacks, Bernard Rosner, Walter C. Willett, Frank B. Hu, Shilpa N. Bhupathiraju, BMJ, online March 4, 2020, doi: 10.1136/bmj.m513

Study Finds that Consuming More Olive Oil Is Associated with Less Heart Disease in Americans

Preliminary research presented on March 5th at the American Heart Association's Epidemiology and Prevention | Lifestyle and Cardiometabolic Health Scientific Sessions 2020 has found that consuming more olive oil was associated with less risk of heart attack among Americans, especially when it replaced mayonnaise, margarine or butter. researchers and clinicians. After accounting for diet and lifestyle factors, researchers found that those who ate more than half a tablespoon per day of olive oil had a 15% lower risk of having any kind of cardiovascular disease and a 21% lower risk of coronary heart disease. However, higher consumption of olive oil did not show an impact on stroke risk.

According to lead author **Marta Guasch-Ferre, Ph.D.**, Research Scientist, "Previous studies have linked high consumption of olive oil with better cardiovascular health, particularly in Mediterranean countries where olive oil intake is much higher than in the United States. Our aim was to investigate whether higher olive oil consumption was beneficial to heart health in the U.S. population". This study took place between 1990 and 2014 and included 63,867 women from the Nurses' Health Study and 35,512 men from the Health Professionals Follow-up Study.

The researchers also compared the cardiovascular health benefits of olive oil with other plant oils combined, such as corn, canola, safflower and soybean. "One interesting thing our study shows is that although olive oil was better than most animal fats and margarine, it was not superior to vegetable oils in this study population," Guasch-Ferre said. "This means that replacing any type of animal fat with vegetable oils, including olive oil but also others, could be a good strategy to improve cardiovascular health."

Co-authors are Gang Liu, Ph.D.; **Yanping Li, M.D., M.S., Ph.D.**; **Laura Sampson, Ph.D.**; Joann E. Manson, M.D., M.P.H., Dr.P.H.; Jordi Salas-Salvado, M.D., Ph.D.; **Miguel Angel Martinez-Gonzalez, M.D., Ph.D., M.P.H.**; **Meir Johnathan Stampfer, M.D., Dr.P.H.**; **Walter Willett, M.D. Dr.P.H.**; **Qi Sun, M.D., M.M.S., Sc.D.**; and **Frank B. Hu, M.D., M.P.H., Ph.D**

To read more:

<https://newsroom.heart.org/news/consuming-more-olive-oil-associated-with-less-heart-disease-in-americans>

<https://www.usnews.com/news/health-news/articles/2020-03-05/olive-oil-could-help-lower-your-heart-disease-risk>

<https://www.heart.org/en/news/2020/03/05/olive-oil-may-lower-heart-disease-risk>

<https://www.healio.com/cardiology/chd-prevention/news/online/%7B8666fd11-6b1f-4d49-926c-fff53230cb%7D/high-olive-oil-consumption-lowers-risk-for-heart-disease>

Some Coping Tips



From: Pacific Heart, Lung, Blood Institute

Let's face it: We are living in very scary times right now. They are causing an unprecedented level of stress and anxiety for all of us. What can we do to alleviate some of this stress? How can we cope? One way to deal with this is through is laughter. Laughter is healthy and, besides, it just plain feels good. **Neha Khandpur**, Visiting Scientist/Postdoctoral Fellow, wanted to share this video directed at teachers and other teaching staff who have to suddenly go online with their classes: <https://youtu.be/CCe5PaeAeew>. If you have something funny you would like to share with your colleagues in the Nutrition Department or have found other ways to cope with this situation, please send to *NutriNews* editor at hfarmer@hsph.harvard.edu .

NUTRITION SOURCE UPDATES

Food safety, nutrition, and wellness during COVID-19

As we navigate these unprecedented times, many are wondering how to safely shop, order, and prepare food to minimize transmission of the novel coronavirus. Although there is currently no evidence of people developing COVID-19 from touching food or food packaging, here are some tips for safely handling food, as well as other resources for staying well at home: <https://www.hsph.harvard.edu/nutritionsource/2020/03/25/food-safety-nutrition-and-wellness-during-covid-19/>

Staying active

Getting regular physical activity is one of the best things you can do for your health. In addition to lowering risk for a number of chronic diseases, it can also help control stress, improve sleep, and boost mood. Try to find ways that you can exercise while maintaining social distancing—such as going for a brisk walk or practicing along with online yoga or workout videos: <https://www.hsph.harvard.edu/nutritionsource/staying-active/>

Food feature: Mushrooms

Learn about mushrooms and health, and try some recipes featuring these versatile fungi: <https://www.hsph.harvard.edu/nutritionsource/food-features/mushrooms/>

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/>)

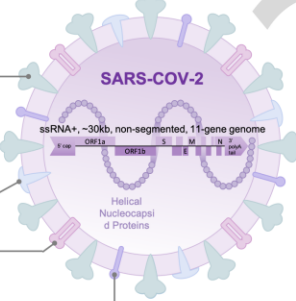
COVID-19: Coronavirus Disease 2019

Harvard Medical School Module 1: From Bench to Bedside Graphic Summary

VIROLOGY

SARS-CoV-2 is a new virus belonging to the Coronavirus family, which includes less pathogenic strains responsible for the common cold, as well as the viruses responsible for SARS and MERS. It is genetically related to the coronavirus responsible for the SARS outbreak in 2003; the closest identified relative was isolated from bats.

- Spike (S) glycoprotein**
 - Trimeric structure resembling corona or crown
 - Responsible for receptor binding, membrane fusion, and hemagglutinin activity
 - Target for eliciting host neutralizing antibody
 - Unique SARS-CoV-2 polymorphism enables S activation by human furin protein (found in lungs, liver, and small intestine), which may explain the association of COVID-19 with liver failure
- Hemagglutinin-esterase (HE) protein**
- Matrix (M) transmembrane glycoprotein**
 - Most abundant structural protein
 - Determines shape of viral envelope
- Envelope (E) protein**
 - Interacts with M to form viral envelope
 - Important for virus infectivity



Transmission

- SARS-CoV-2 is spread primarily via droplet, though it can be aerosolized and can persist on plastic and stainless steel surfaces for up to 72h
- Disinfectants with commercial concentrations of EtOH or H₂O₂ are effective

PATHOPHYSIOLOGY

Type I Pneumocyte

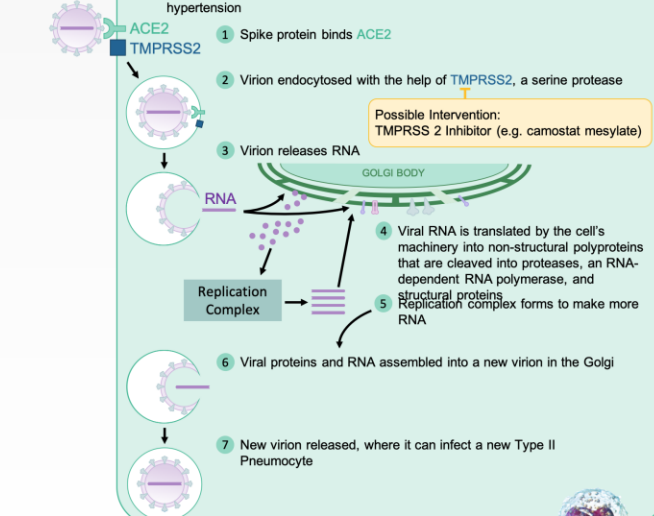
- Simple squamous epithelial cell
- 97% of alveolar epithelium
- Thin, ideal for blood-gas barrier to adjacent pulmonary capillary endothelium

Type II Pneumocyte

- Cuboidal epithelial cell
- 3% of alveolar epithelium
- Secrete pulmonary surfactant to decrease lung surface tension
- Act as alveolar epithelial stem cells, proliferating in settings of lung inflammation and damage
- Express **Angiotensin Converting Enzyme 2 (ACE2)** which is implicated in the Renin-Angiotensin-Aldosterone System and the pathogenesis of hypertension

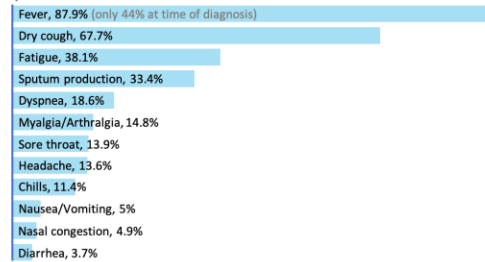
ALVEOLUS

SARS-COV-2



CLINICAL

Symptoms



Risk stratifying factors:

- Cardiovascular disease
- Hypertension
- Diabetes
- Chronic Respiratory Disease
- Cancer (any)
- Elderly, generally >60y
- Immunocompromised status

Full mechanisms not yet known

Partially mediated by:
ACE Inhibitor use
Angiotensin II Receptor Blocker use
Thiazolidinedione use
Ibuprofen use

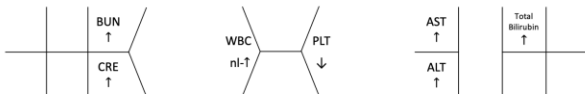
Upregulation of ACE2 Receptor

Increased viral susceptibility

Diagnostic testing

- Currently a syndromic diagnosis of COVID-19 while awaiting definitive microbiological diagnosis
- RT-PCR against SARS-CoV-2 transcripts is the current gold standard diagnostic
 - High specificity
 - Variable sensitivity based on testing kit
- Serological antibody tests are in development and may detect both active and prior infection

Laboratory Findings



- Common findings: lymphocytopenia (most common laboratory finding), thrombocytopenia, leukopenia, TCRP
- Less common findings: TAST, TALT, TCK, TD-dimer
- In severe cases: Ttroponin, Tmyoglobin, TIL-6, Tprocalcitonin, TLDH, Talbumin

Imaging

- Imaging is not recommended for screening, but common chest CT findings include ground-glass opacities, consolidation, and crazy paving patterns, in a bilateral peripheral distribution

Clinical Course

- Clinical outcomes: mild disease, pneumonia, severe pneumonia, acute respiratory distress syndrome (ARDS), septic shock
- Case fatality rate (CFR) estimated at 2%, but given that many mild cases have gone undiagnosed, CFR is likely lower

Investigational Treatment

- There are currently no FDA-approved treatments directed against COVID-19 at this time (03.19.20). However, a variety of therapies are under investigation. These include repurposing of
 - Antivirals: remdesivir, lopinavir/ritonavir
 - Antimalarials: chloroquine/hydroxychloroquine
 - Immunosuppressive medications: tocilizumab
 - Transfusing antibodies against SARS-CoV-2 analogs/SARS-CoV

Investigational Prevention

- It is expected that COVID-19 vaccine development will take a minimum of one year

Immune Response

Innate Immune System

- Delayed or suppressed Type I Interferon (IFN) response during initial infection
- Viral replication triggers hyperinflammatory conditions and cytokine storm
- Influx of activated neutrophils and inflammatory monocytes/macrophages
- Serum neutrophilia and elevated pro-inflammatory cytokines are associated with severity of disease

Adaptive Immune System

- T helper cells Th1/Th17 are induced
- Specific antibodies not yet established
- Serum lymphopenia may be related to an antiviral response of bone marrow suppression

Treatment

SYMPTOMS

MANAGEMENT

	SYMPTOMS	MANAGEMENT
MILD	<ul style="list-style-type: none"> Subjective or low-grade fever Dry cough Myalgias and arthralgias Nasal congestion Headache Sore throat 	<ul style="list-style-type: none"> 14d home quarantine Return precautions Supportive care: encourage eating and drinking, acetaminophen for comfort/fever Avoid or be cautious with ibuprofen
MODERATE	<ul style="list-style-type: none"> High-grade temperatures Shortness of breath/ trouble breathing especially if involving the need for supplemental oxygen Chills Profound fatigue 	<ul style="list-style-type: none"> Airborne isolation Supportive care: conservative fluid management, acetaminophen for comfort/fever Respiratory support Treat comorbidities: <ul style="list-style-type: none"> Suspected sepsis: empiric antibiotics Flu: oseltamivir Asthma/COPD: bronchodilators
SEVERE	<ul style="list-style-type: none"> Severe dyspnea Hypoxia Dehydration 	<ul style="list-style-type: none"> As above plus: Advanced ventilatory support

tinyurl.com/MedStudentCOVID19Curriculum | tinyurl.com/MedStudentCOVID19Graphic

Figures not to scale. | Current as of 03.19.2020. | Please see bibliography in written module.

Student authors: Adi Achanta; Kendall Carpenter; Pamela Chen; Nicole Gilette; Pinky Langat, PhD; Blake Oberfeld; Jordan Said; Simone Sasse; Abigail Schiff, PhD; and Allen Zhou | Graphic by Blake Oberfeld