

NUTRI NEWS

The Department of Nutrition

March 2017

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

NEWS FROM AROUND THE DEPARTMENT

Allison Andraski, a 4th year doctoral student in the Biological Sciences in Public Health in **Dr Frank Sacks'** lab, has received an American Heart Association Predoctoral Fellowship.

Hazreen Abdul Majid, RD, PhD (Visiting Scientist) has been awarded a grant of \$220,00 USD by the Newton Ungku Omar Fund: MRC UK and Academy of Science Malaysia Bilateral Health Research Collaboration in Non Communicable Diseases. (PI: Hazreen Abdul Majid). The MyHeART BEaT (Behavioural Epidemiology and Trial) project will analyse and extend the existing cohort resource, then build on findings to date to develop a school-based intervention to improve cardiometabolic health in Malaysian adolescents.



Laura B. Harrington, PhD, MPH, Postdoctoral Research Fellow in Cardiovascular Epidemiology, was awarded the AHA Epidemiology and Prevention Early Career Travel Award.



Marta Guasch-Ferre, PhD, Research Fellow, was a finalist of the Jeremiah and Rose Stamler Research Award for New Investigators. She also gave a 15-minute oral presentation at the AHA Epi Lifestyle seminar in Portland, OR, March 7-10.

At the same AHA Meeting, **Xiaoran Liu**, Postdoctoral Fellow, received the Scott Grundy Fellowship Award for Excellence in Metabolism Research; and **Geng Zong**, Postdoctoral Fellow, received the Trudy Bush Fellowship for Cardiovascular Disease Research in Women's Health.

Yan Zheng also gave an oral presentation on "Associations of Weight Gain From Early 007 to Middle Adulthood with Major Health Outcomes in Later Life"; and former Nutrition student **Deirdre K. Tobias**, a former student and trainee and now a faculty member at BWH, gave her oral presentation on "Diabetes Metabolomics Score and 042 Risk of Progression from Gestational Diabetes to Type 2 Diabetes".



Majken Jensen, Assistant Professor, and **Manja Koch**, Postdoctoral Research Fellow, were awarded 3 years of funding from the BrightFocus Foundation on Dr Jensen's project "Plasma fatty acids, antioxidants and Alzheimer's Risk".

Ming Ding, MD, DSc, Research Fellow, published the following paper: Ming Ding, Tao Huang, Helle KM Bergholdt, the CHARGE Consortium, Børge G Nordestgaard, Christina Ellervik, Lu Qi. **Dairy consumption, systolic blood pressure, and risk of hypertension: Mendelian randomization study.** BMJ 2017;356:j1000

ERIC RIMM AND WALTER WILLETT WIN AWARD FROM CLIMATE CHANGE SOLUTIONS FUND!



Eric Rimm, Professor in the Departments of Epidemiology and Nutrition, and **Walter Willett**, Professor of Epidemiology and Nutrition, have just received funding for their project titled **Eating Green on Campus: Motivating the Next Generation Toward Sustainable Dietary Patterns**. **Stacy Blondin**, formerly of the Nutrition Department, and **Ann-Christine Duhaime**, of Harvard Medical School, are co-recipients of this award.

Under this program seven research projects led by scientists, historians, economists, and public health experts from five Harvard Schools will now share about \$1 million in the third round of grants awarded by the [Climate Change Solutions Fund](#). This initiative, which was launched by Harvard President Drew Faust, encourages multidisciplinary research that seeks creative solutions to climate change.

Three years ago, Faust announced the creation of the fund to hasten the transition from carbon-based energy systems to those that rely on renewable energy sources, and to propel innovations to accelerate progress toward cleaner energy and a greener world.

Agriculture contributes up to 25 percent of total global, human-caused greenhouse gas emissions and utilizes as much as 70 percent of Earth's water. **Rimm** and **Willett's** project will use Harvard's campus as a living laboratory to design, implement, and evaluate an intervention intended to improve the healthfulness and reduce the environmental impact of food choices among college students in a dining hall setting.

Excerpted from: <http://news.harvard.edu/gazette/story/2017/03/7-projects-win-funding-for-climate-change-solutions/>

MEET DR MAJKEN JENSEN, ASSISTANT PROFESSOR OF NUTRITION!

(By Hilary Farmer)

Dr Jensen joined our faculty in 2012 as Assistant Professor of Nutrition and Genetic Epidemiology. Her current work primarily focuses on the epidemiology of chronic lifestyle diseases (dementia, cardiovascular disease, and diabetes) with an emphasis on the use of biomarkers as indicators of nutritional status, genomic makeup, and plasma protein expression. Her most recent grants have funded current research on the relationship between lipoprotein subtypes and risk of diabetes, cognitive decline, and dementia.



Majken (first name can be pronounced *My-ken*) received her PhD from Aarhus University in Denmark, based on studies conducted in the Danish EPIC study, the Nurses' Health Study, and the Health Professionals Follow-Up Study.

NN: *Dr Jensen, before you joined our faculty as Assistant Professor, you were here in our department as visiting scientist and postdoctoral fellow. Could you please tell us a little about your background?*

That's correct, my time here in the department goes back to 2002 when I arrived on a Fulbright scholarship to work with **Eric (Rimm)**. I just received my Bachelor's degree in Public Health Science at Copenhagen University, after which I worked on epidemiological analyses related to alcohol and cardiovascular disease with Professors Morten Groenbaek and Thorkild Soerensen. Morten encouraged me to continue my training at an international institution to acquire new skills and perspectives. Morten knew Eric of course, from all the Harvard alcohol papers, and because Morten and Eric had sort of opposing views on the alcohol-CVD research, working with him on alcohol and CVD research seemed like the perfect challenge.

NN: *What attracted you to Harvard?*

I would say it was working with some of the researchers who inspired me the most. In addition to the Fulbright scholarship, I received a Danish travel scholarship specifically to investigate the associations between alcohol and cardiovascular disease. However, after joining the Department of Nutrition and sitting in on **Walter's (Willett)** Nutritional Epidemiology course, I was exposed to a much bigger world of "nutrition", and that quickly led to research beyond alcohol. After extending my stay several times through various different travel scholarships, I transferred the coursework I had completed while at HSPH towards Copenhagen University and finally got my Danish Master's degree in 2005.

At that time I had gotten involved in genetic epidemiology. Back then, we used candidate genes to gain insights into particular pathways and I was really inspired to study genes in HDL metabolism to better understand the association of alcohol and CHD. It was very hard to leave Harvard as most other academic institutions didn't have biorepositories with DNA extracted and were not quite as advanced in using genetic information. However, I returned to Denmark in 2005 and enrolled in a PhD program at Aarhus University, where I applied the knowledge gained from my experiences working on the Nurses' and Health Professionals case-control studies to help create a similar study with plasma for biomarkers and DNA extracted within the Danish EPIC study.

For genetics, replication is very important, so I ended up doing my thesis using all 3 studies and visited HSPH 5 to 6 times a year until I graduated in 2008. Right around then, Eric received funding to conduct a genome-wide association study of CHD and offered me a postdoc. I missed the academic environment and it was impossible to say no to this new big challenge in the genetic epidemiology field.

NN: *You also worked with **Dr Frank Sacks** to document the differential relationships of HDL with and without Apo C-III to risk of coronary heart disease, is that correct?*

Yes, and as it turned out, using genetics to better understand the role of HDL in heart disease (my PhD thesis) was not a very fruitful endeavor! It's almost common knowledge now that genetic studies showed that HDL-cholesterol is not causally associated with CHD. While the finding proved frustrating, it also encouraged me to think beyond the epidemiologic methods and look for the other missing pieces that may explain the association between HDL and CHD. HDL-cholesterol has one of the strongest inverse associations with risk of coronary heart disease, so clearly this association must capture something. Frank Sacks' research on LDL (the "bad" cholesterol counterpart to the "good" HDL), which showed that some subtypes of LDL (those that had a small apolipoprotein, apoC-III) heightened the risk of heart disease, made me wonder if the same concept could be applied to HDL? What if some types of HDL were simply not functioning as well and thus would be protective for CHD? With Eric and Frank we were able to look at this in the Nurses' and Health Professionals pretty quickly and this really started a great research collaboration to evaluate HDL subtypes according to the protein cargo. After that I got 3 years of funding from the Danish Research Foundation to measure these HDL subtypes in the Danish EPIC study and work on the association with risk of CHD and diabetes. We have since expanded the research beyond looking at apoC-III, and because HDL is related to many other chronic lifestyle diseases, including diabetes and dementia, this work is still very active with my first R01 from NINDS funded two years ago. In the past 10 years in the HDL field, many other measures that aim to capture HDL's "functionality", rather than absolute HDL levels, have been developed by other research groups. It's quite exciting to see how it will all play out.

NN: *How do you like living in Boston and New England?*

What I enjoy most about living here is that on most days (whether insanely hot and humid in summer or ice-cold in winter), the skies are clear blue and sunny. If you come from a place like Denmark where many days are rainy or at least cloudy, you really appreciate this! Boston and the surrounding region also have many opportunities for nature/outdoor activities. We recently moved a bit further out of the city, and I appreciate this even more now.

NN: *How have your major research interests expanded?*

I developed an interest in Alzheimer's and dementia research through my genetic work on lipids and cardiovascular disease. Many top hits in genome-wide association studies of Alzheimer's disease are related to apolipoproteins and lipids. When a collaborator on our HDL subspecies project approached me to ask what I knew about the inverse association of HDL-cholesterol with Alzheimer's risk, it was like these research agendas had merged. Prior to that, my research focus was definitely on the biomarker side, be it genomics, lipids or proteomics, in relation to cardiometabolic diseases. However, after entering the dementia research field, it has been like finding my own research home. I feel like our research can contribute and make a difference in this field, and the collaborations have been so easy and wonderful.

NN: *I understand you recently participated in a "Shark Tank" contest at Harvard University?*



Yes, junior faculty were asked to pitch innovative research ideas to project 2:58, a pilot program that sought to make an online "crowdfunding" platform for Harvard alumni to view a variety of research projects from across the University and make a gift to support the ones they find most inspiring and interesting. It was a very interesting experience; I made a video pitch that lasted exactly 2 minutes and 58 seconds. The winning videos were shown to the Alumni and my project (on the development of blood-based biomarkers for Alzheimer's disease) has already received its first donation.

NN: *What do you see as the major implications of your findings so far?*

Our work has demonstrated a role of HDL that goes beyond the traditional measure of HDL-cholesterol usually taken in the doctor's office. Much more work is required to fully understand the clinical implications of this research area, but we now know that even if you have high levels of HDL, that might not necessarily mean you

have a low risk of cardiometabolic disease. And now we are embarking on research evaluating how HDL subtypes may show differential associations with dementia, cognitive decline and measures of brain pathology. There are no biomarkers that are easily obtainable from blood samples which predict the risk of dementia. So having such a test (such as the LDL-cholesterol one for heart disease) may be instrumental for the prevention and targeted treatment of those at elevated risk for dementia.

NN: *What are your future research goals?*

My research goals are to contribute to the development of noninvasive biomarkers of dementia, to use our knowledge of biochemistry to better understand the underlying biology, and also to improve the epi-methods used in dementia research.

NN: *What do you like to do for recreation?*

I like to spend quality time with my family and friends. We used to do a lot of cooking together, but that's one thing that I find harder to fit in with a 5-year old that loses interest pretty quickly. We usually plan outdoor adventures on weekends. We are expecting our second baby in a couple of weeks, and after that I look forward to jogging again.

The Department of Nutrition is currently seeking candidates for the position of Assistant or Associate Professor in Public Health Nutrition. Please feel free to share this with your colleagues!

For more information: <http://academicpositions.harvard.edu/postings/7477>

SAVE THE DATE ANNOUNCEMENTS!

On November 1, 2017, the Nutrition Department at the Harvard T.H. Chan School of Public Health will be celebrating its **75th year!** At the same time we will also be having our **13th Annual Stare-Hegsted Lecture.** Dr Lawrence J Appel, of The Johns Hopkins University, will be this year's speaker. The two events will be combined that afternoon. The Department will be celebrating its 75 years with a symposium starting at 1:00 pm and the Stare-Hegsted Lecture will be at 4:30 pm, with a reception afterwards. Both events will take place at the NRB in the Rotunda Room. More details will follow later.

SHARPENING YOUR COOKING SKILLS TO IMPROVE YOUR HEALTH!



Dr Eisenberg cooking with his children.

David Eisenberg, MD, Adjunct Associate Professor of Nutrition and Director of Culinary Nutrition, at the Harvard T.H. Chan School of Public Health, was featured in the March 2017 issue of the **Harvard Men's Health Watch** on the benefits of learning better culinary skills. **Eisenberg** states that the more often one cooks, the healthier one's lifestyle becomes. For example, people who cook dinner frequently at home consume fewer calories than those who do not. They also eat fewer grams of fat and sugar and their meals contain far greater diversity and include more healthy types of foods.

Dr. Eisenberg stresses that it's more important for men who cook at home to learn proper techniques (vs learning more individual recipes). Some of these techniques might include learning how to make soups and salad dressings, and learning how to prepare whole-grain dishes. An added benefit to all of his good advice is that men are not only learning how to quickly heat up a great meal, but they may also be heating up their own social lives as well. Needless to say, when your friends and loved ones warm up to your wonderful new culinary delights, they are also warming up to you!

UPCOMING MONDAY NUTRITION SEMINARS IN MARCH

*The **Monday Nutrition Seminar Series** takes place every Monday from September – May at 12:30-1:30 in Kresge 502. All Monday Nutrition Seminars are free and open to the public. For more information, contact: hfarmer@hsph.harvard.edu*

April 3	Dr Ihab Tewfik, Visiting Scientist (NGHP)
April 10	CANCELLED
April 17	Dr Luc Djousse, Associate Professor, BWH
April 24	Dr Lisa Harnack, University of Minnesota

STUDENT NEWS

Alyssa Moran was awarded funding from the **Barry R. and Irene Tilenius Bloom Fellowship Fund for 2016-17** which provides a one-time stipend to be used for research. This fellowship provides financial support for students and/or postdoctoral fellows at the Harvard School of Public Health. Recipients are first nominated by their department and then selected on the basis of academic merit, leadership potential, and commitment to improving public health in fields and areas of the world in greatest need.

Katie Cueva successfully completed her dissertation defense *Culturally-Relevant Strategies to Build Capacity among Community Health Workers: Lessons from Alaska* on Monday, March 6th.

Tayla Ash will be presenting at the International Society of Behavioral Nutrition and Physical Activity (ISBNPA) in Victoria, Canada in June.

MORE NUTRITION ACTIVITIES IN LONGWOOD MEDICAL AREA

DIVISION OF NUTRITION AT HARVARD LONGWOOD NUTRITION SEMINAR 2016-2017

Medical Education Center, Harvard Medical School
260 Longwood Avenue, Cannon Room (Building C1) Boston, MA
12:00 – 1:00 PM 1st Tuesday of Month (Lunch will be served at 11:30 AM)

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|---------------|---|
| April 4, 2017 | Kris Mogensen, MS, RD, LDN, CNSC and Kenneth Christopher, MD
Brigham & Women's Hospital
<i>Nutritional Metabolomics</i> |
| May 2, 2017 | Camilia R. Martin, MD, MS
BIDMC Department of Neonatology/HMS
<i>The role of fatty acids and their terminal metabolites in neonatal development and morbidity risk</i> |
| June 6, 2017 | Lindsay Arnett, RD and Amy Turner, MD
Boston Children's Hospital
<i>Case Study on refeeding syndrome in a severely malnourished child</i> |

Supported by the Conrad Taff Educational Fund, Harvard Medical School
and Mead Johnson Nutrition

For further information: contact Barbara Ainsley @ 617-667-2604
bainsley@bidmc.harvard.edu

The 3rd Annual Omics Symposium will take place on May 30, 2017, from 9:00 am to 5:00 pm at the Harvard T.H. Chan School of Public Health at 667 Huntington Avenue, Boston MA. **Omics: Advances, Applications, and Translation in Nutrition and Epidemiology** will be in Kresge G2. This symposium

will bring together experts in emerging omics technologies and techniques, with an emphasis on recent advances and applications in population-based research, integration with nutrition, and translational applications.

Registration link: [Nutrition Omics Symposium Registration 2017](#)

Harvard Medical School Division of Nutrition
The 18th Annual Postgraduate Nutrition Symposium
Surgical Treatment of Obesity: Physiological Mechanisms and Clinical Effects

Wednesday & Thursday

July 12-13, 2017

Located at

The Joseph B. Martin Center at Harvard Medical School

77 Avenue Louis Pasteur
Boston, MA 02115 USA

Presented by

The Division of Nutrition

Harvard Medical School and Nutrition Obesity Research Center at Harvard

in conjunction with

The Department of Nutrition

Harvard T.H. Chan School of Public Health

[Click here to Register](#)

Email

[harvardnutrition@
pmkassociates.com](mailto:harvardnutrition@pmkassociates.com)

or call

703-841-1600 for more information or questions.

On behalf of the Nutrition Obesity Research Center at Harvard, we would like to extend registration to our 18th Annual Symposium, which will take place in July. Please consider registering, as this is a very educational event to attend. Registration is free and we welcome everyone- students, physicians, community members, academic faculty, etc. Click [here](#) to register. *Contact:* HarvardNORC@mgh.harvard.edu with any questions.

POSTDOC NEWS

Harvard Chan Poster Day will be on April 26th. This will be a valuable opportunity for members of the School to engage in interdisciplinary interactions, to share research results, and to generate new ideas.

Abstract Submission Deadline: Friday, April 7th
Poster Day: Wednesday, April 26th

Poster Showcase: 3:00-5:00pm, Kresge Cafeteria

Awards Ceremony and Reception: 5:00 – 6:00 pm, Kresge Cafeteria

Remarks and awards presentation by Dean Michelle Williams

Cash prizes will be awarded for: best student poster, best postdoc or research associate poster, and best overall poster.

When you submit your abstract, please also consider submitting an image for the cover of the abstract booklet. More information can be found at our website: <https://www.hsph.harvard.edu/posterday/>

If you have any questions, please do not hesitate to contact us: PDA@hsph.harvard.edu or HarvardChanSA@gmail.com

This event is supported by the Office of Faculty Affairs and Dean Michelle Williams.

NUTRITION STAFF ATTENDS SECOND ANNUAL RETREAT



The second annual all-staff retreat was organized by Director of Administration and Finance, **Katrina Soriano**. It took place on March 24, 2017 at the Landmark Center's Hatch area. There were approximately 30 staff, all with varying roles, who attended from across the Department. The retreat was led by the LMA Training Manager, **Gillian Simkiss**, with a special unit on stress management taught by the LMA area Work life Balance Program Manager, **Susanna Katsman**. The retreat was kicked-off with a greeting from **Dr. Frank Hu**, Department Chair, who provided words of thanks for the many contributions of the staff and also offered an overview of his plans for the Department in the future. The topics covered in the retreat are below. This retreat offered a day of professional development as well as a chance for staff across the department to bond and enjoy time with one another.

- Myers-Briggs Type Indicator (MBTI) (staff took an online MBTI assessment prior to the retreat. Results were reviewed and there was discussion on how to use the data in our workplace communication and roles.
- Communication
- Meeting Management
- Stress Management
- Review and discussion of Shaun Anchor's "**The Happy Secret To Better Work**"

Disease Burden in Developing Countries Could Be Reduced by New Low-cost Rotavirus Vaccine

A new study from researchers at Harvard T.H. Chan School of Public Health and Epicentre, Paris has found that a new vaccine for rotavirus was found to be 66.7% effective in preventing severe gastroenteritis caused by the virus. **Dr Sheila Isanaka**, Assistant Professor of Nutrition, is first author of this study. Rotavirus is responsible for about 37% of deaths from diarrhea among children younger than 5 years of age each year, or about 450,000 children, with a disproportionate effect in sub-Saharan Africa. To make a difference in countries where the rotavirus burden is highest and access to health care is low, vaccines need to be affordable, as well as safe, effective, and heat-stable.

According to **Isanaka**, "This trial brings a vaccine which is adapted to African settings to those who need it most When the vaccine becomes widely available in Africa, it will help protect millions of the most vulnerable children."

The study was supported by Médecins Sans Frontières Operational Center in Geneva and the Kavli Foundation. Epicentre receives core funding from Médecins Sans Frontières.

"Efficacy of a Low-Cost, Heat-Stable Oral Rotavirus Vaccine in Niger," Sheila Isanaka, Ousmane Guindo, Celine Langendorf, Amadou Matar Seck, Brian D. Plikaytis, Nathan Sayinzoga-Makombe, Monica M. McNeal, Nicole Meyer, Eric Adehossi, Ali Djibo, Bruno Jochum, and Rebecca F. Grais, *New England Journal of Medicine*, March 23, 2017, doi: 10.1056/NEJMoa1609462

To learn more about this study: <https://www.hsph.harvard.edu/news/press-releases/rotavirus-vaccine-disease-burden-developing-countries/>

NUTRITION SOURCE UPDATES FOR MARCH!

Healthy Meal Prep Kit

For those of you with packed weeknight schedules (which means most of us!), NS offers some great tips for planning to make a healthy dinner or pack a healthy lunch, including these examples:

- If you now eat fast food or takeout several nights of the week, your goal may be to choose a specific day of the week to create a food shopping list and hit the grocery store.
- If you already food shop once a week and have basic cooking skills, your goal may be to choose one day a week to do most of the cooking, or try a new recipe.
- If you already cook some weekday meals for your family, you might decide to create a schedule so that you are not deciding last minute what to make and to ensure you have the needed ingredients on hand.

Some benefits of meal prep:

- Can help save money
- Can ultimately save time
- Can help with weight control, as you decide the ingredients and portions served
- Can contribute to an overall more nutritionally balanced diet
- Can reduce stress as you avoid last minute decisions about what to eat, or rushed preparation

To learn more about these and other healthy meal prep ideas:

<https://www.hsph.harvard.edu/nutritionsource/2017/03/20/meal-prep-planning/>

Try a new whole-grain: Quinoa!

Quinoa is an edible seed from South America, which is classified as a whole grain and is a good source of plant protein and fiber. Quinoa is not only very good for you, it is also quite delicious! See the following web page on **NutritionSource** for learning how to prepare and serve this wonderful new dish:

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