

NUTRI NEWS

The Department of Nutrition

November 2017

NUTRITION DEPARTMENT CELEBRATES ITS 75th ANNIVERSARY!



The Harvard Chan School's Nutrition Department, together with friends and alumni, celebrated its 75th anniversary with an afternoon symposium of faculty and alumni speakers, a poster session, and the 13th Annual Stare-Hegsted Lecture by *Dr Lawrence Appel* at the Joseph B Martin Center on November 1, 2017.



Dr Frank Hu (Professor of Nutrition & Epidemiology; Chair of the Department of Nutrition) kicked off this landmark celebration with some opening remarks that included various milestones throughout the department's history, accompanied by old photos of the department. Hu set the tone for the rest of the afternoon with his ready wit and elicited considerable laughter from the audience when he remarked on how some of his colleagues used to look like "hippies". He then presented a pre-recorded video of himself interviewing **Dr Bernard Lown** (Professor Emeritus, HSPH; Founder, Lown Cardiovascular Group; Chairman Emeritus, Lown Institute), a cardiologist who had joined the department in the 1950s. Lown, now 96 years old, and known for developing the defibrillator and winning the Nobel Peace Prize in 1985, together with his colleagues, on behalf of International Physicians for the Prevention of Nuclear War, strongly feels that poverty and climate change are central issues that need to be addressed by nutrition researchers today.

Dean Michelle Williams (Dean of the Faculty of the Harvard T.H. Chan School of Public Health) highlighted the department's past achievements and successes, as well as noting the continuing impact it has as a leader in nutritional research today. Williams herself is a distinguished epidemiologist and award-winning educator known for her influential studies of maternal and child health around the world.





Dr Walter Willett (Professor of Epidemiology & Nutrition), and Hu's immediate predecessor as chair, made a few brief remarks about Fredrick Stare and Mark Hegsted, two of the department's founders, and lauded all the department's primary faculty since he became chair. Willett was quite proud of the fact that this department greatly outranks other top nutrition department throughout the country with its number of publications in AJCN and other top-tier scientific journals. He also noted how we have made headway in improving dietary quality with a substantial reduction in disease burden. However, what Willett was proud of most of all were all of the stellar faculty members he had hired and mentored during his 25-year tenure as chair of the department.

Following the opening remarks, four Nutrition faculty members, each representing a different student concentration in nutrition, spoke about research in that area. *Dr Frank Sacks* (Professor of Cardiovascular Disease Prevention) stressed the importance of **biochemistry** in nutrition research. Sacks' lab has had an ongoing investigation of HDL cholesterol and metabolism, and his group has also embarked on a collaboration with Rush University Medical Center in Chicago on the MIND trial. Sacks' core lab, directed by *Dr Jeremy Furtado* (Senior Research Scientist), studies various biomarkers of diseases, and *Dr Majken Jensen* (Assistant Professor of Nutrition) has been investigating various HDL subspecies, dementia, cognitive decline, and brain structure and function. Sacks' clinical trials



have also tested dietary patterns, foods and nutrients. Finally, the DASH diet and low sodium have been studied extensively for years, and Sacks was careful to note that his early pioneering efforts on the DASH diet were made with **Dr Lawrence Appel**, this year's distinguished Stare-Hegsted speaker.



The **public health nutrition** (PHN) program was represented by its Director, **Dr Kirsten Davison** (Donald and Sue Pritzker Associate Professor of Nutrition). This concentration was developed and accredited in 2005 and has grown rapidly ever since. Its curriculum has since been expanded and has enjoyed a growing student interest in this concentration. Davison noted the wide range of backgrounds of her student applicants, including from the USDA, CDC, Center for Science in the Public Interest, and schools—just to name a few. She was especially proud of the fact that for the past five years the Simonian Award in Research Excellence, which is awarded to the first-year

Nutrition student with the top GPA, was awarded to a PHN student. Davison also provided a brief overview of the research conducted by PHN faculty.

Dr Wafaie Fawzi (Professor of Nutrition, Epidemiology, and Global Health; and Chair, Department of Global Health & Population) discussed the **global health** concentration in terms of its work on stunting and underweight, the vicious cycle of undernutrition and infection, and the early work of **Dr. M Guillermo Herrera** (past department member) on vitamin A supplementation and childhood survival. Fawzi also discussed the Global Nutrition & Epidemiologic Transition Initiative (GNET) in reducing the global burden of diabetes by improving diet quality in countries undergoing epidemiologic transition. Important work on agriculture, nutrition and the food system, and



recent work in India and Africa was also a focus of his discussion. Fawzi concluded by noting that nutrition researchers are now developing a more integrated approach to apply nutritional interventions in developing countries and of how our current work is now focused on this.

The last speaker was **Dr Edward Giovannucci** (Professor of Nutrition and Epidemiology), who touched upon various research being conducted in the extremely broad concentration of **nutritional epidemiology**. Giovannucci explained that the department's nut epi concentration has built upon decades of important findings from both healthy and unhealthy dietary patterns in an effort to determine how the foods we ate when we were young may have affected

important health outcomes in later life. Giovannucci said that the department's early work included fat intake and breast cancer mortality; the key methodologic developments that resulted from semi-quantitative food frequency questionnaires; the increase in attention that is being paid to adolescent (high school) diet; new study approaches that compare different dietary patterns; and energy substitution. He also included in his whirlwind summary the contributions of nutritional epidemiology to the 2015 US Dietary Guidelines which now emphasize healthy dietary patterns; the focus on prospective cohort studies by WCRF and AICR; and future directions in the new 'omics studies.

The Symposium ended with a lively alumni panel including **Drs Alice Lichtenstein** of Tufts University Friedman School of Nutrition, **Margo Wootan** of the Center for Science in the Public Interest, **Karen Peterson** of the University of Michigan, and **Lawrence Kushi** of Kaiser Permanente. Both the panel members and the audience were kept on their toes by the entertaining wit of **Dr Eric Rimm**, who moved the program along with plenty of laughs and his own insight. Each panel member gave a brief but entertaining 5-minute IGNITE presentation recalling their experiences while here at HSPH. Although each of them had taken a completely different path after graduation, several common themes emerged when they were asked about which advice to impart to current students: Don't ever let anyone stop you from following your true passions, and always be sure to keep in touch with the friends (students and faculty alike) you made here when you were at Harvard.



All 75th Anniversary event photos courtesy of Sarah Sholes and Matthew Soriano

To read more:

https://www.hsph.harvard.edu/news/features/nutrition-department-75th-anniversary/

https://www.hsph.harvard.edu/nutrition/2017/11/02/75-anniversary/

https://cdn1.sph.harvard.edu/wp-content/uploads/sites/65/2017/10/september-2017-newsletter-final.pdf

https://cdn1.sph.harvard.edu/wp-content/uploads/sites/65/2017/10/october-2017-newsletter-final1.pdf

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

NUTRITION UPDATES

Postdoctoral Fellow **Yu-Han Chiu** published the following paper:

Chiu YH, Karmon AE, Gaskins AJ, Arvizu M, Williams PL, Souter I, Rueda BR, Hauser R, and Chavarro JE. Serum omega-3 fatty acids and treatment outcomes among women undergoing assisted reproduction. <u>Hum Reprod.</u> 2017 Nov 10:1-10. doi: 10.1093/humrep/dex335. [Epub ahead of print]

Professor Donna Spiegelman and her team have published the following new papers:

- 1. Wong BHW, Peskoe SB, **Spiegelman D**. The Effect of Risk Factor Misclassification on the Partial Population Attributable Risk. Statistics in Medicine. In press, 2017.
- 2. Shrestha A, Karmacharya B, Khudyakov P, Weber MB, **Spiegelman D.** Dietary Interventions to Prevent and Manage Diabetes in Worksite Settings a Meta-Analysis. Journal of Occupational Health. In press, 2017.
- 3. **Spiegelman D**, Khudyakov P, Wang M, Vanderweele TJ. Evaluating public health interventions: 7. Let the subject matter choose the effect measure: ratio, difference or something else entirely. American Journal of Public Health. In press, 2017.
- 4. Shrestha A, Pyakurel P, Shrestha A, Gautam R, Shrestha N, Rhodes E, Tamrakhar D, Karmacharya BM, **Spiegelman D.**Facilitators and Barriers to Eating Healthy in an Industrial Cafeteria: A Qualitative Study from Nepal. Heart Asia. In press, 2017.
- 5. Nevo D, Liao X, **Spiegelman D.** Estimation and Inference for the Mediation Proportion. The International Journal of Biostatistics. 2017 Sep 20. doi:10.1515/ijb-2017-0006. [Epub ahead of print]
- 7. Vadiveloo MK, **Malik VS, Spiegelman D, Willett WC, Mattei J.** Does a grill menu redesign influence sales, nutrients purchased, and consumer acceptance in a worksite cafeteria? Preventive Medicine Reports. 2017 Sep 11. [Epub ahead of print]
- 10. Noor RA, **Abioye AI**, Ulenga N, Msham S, Kaishozi G, Gunaratna NS, Mwiru R, Smith E, Dhillon CN, **Spiegelman D**, **Fawzi W**. Large—scale wheat flour folic acid fortification program increases plasma folate levels among women of reproductive age in urban Tanzania. PloS one. 2017 Aug 10;12(8):e0182099.
- 12. Adebamowo SN, Eseyin O, Yilme S, Adeyemi D, **Willett WC, Hu FB, Spiegelman D, Adebamowo CA**, Global Nutrition Epidemiologic Transition Initiative. a Mixed-Methods study on acceptability, Tolerability, and substitution of Brown rice for White rice to lower Blood glucose levels among nigerian adults. Frontiers in Nutrition. 2017 Jul 20;4:33.
- 15. **Spiegelman D,** VanderWeele TJ. Evaluating Public Health Interventions: 6. Modeling Ratios or Differences? Let the Data Tell Us. American Journal of Public Health. 2017 July;107(7):1087-91.
- 16. **Ganmaa D,** Munkhzul B, **Fawzi W, Spiegelman D, Willett WC**, Bayasgalan P, Baasansuren E, Buyankhishig B, Oyun-Erdene S, Jolliffe DA, Xenakis T. High-Dose Vitamin D3 During Tuberculosis Treatment in Mongolia: A Randomised Controlled Trial. American Journal of Respiratory and Critical Care Medicine. 2017 Sep 1; 196(5): 628-37.
- 18. Liao X, Zhou X, Wang M, Hart JE, Laden F, **Spiegelman D.** Survival analysis with functions of mismeasured covariate histories: the case of chronic air pollution exposure in relation to mortality in the nurses' health study. Journal of the Royal Statistical Society: Series C (Applied Statistics). 2017 June; doi:10.1111/rssc.12229. [Epub ahead of print].

Professor Spiegelman gave the following Invited Presentations:

Nov 10, 2017: Dean's Special Lecture, Durban University of Technology, Durban, South Africa, "The case for the promotion of healthy workplace environments in the battle against the global cardiometabolic diseases epidemic".

November 1, 2017: Atlanta, Georgia Center for Diabetes Translation Research and Rollins School of Public Health, Emory University, "The case for the promotion of healthy workplace environments in the battle against the global cardiometabolic diseases epidemic"

September 7, 2017: "An overview of old and new design and analysis methods for implementation research". Half-day workshop. Society for Implementation Research Collaborative, Seattle, WA, **August 21, 2017:** "Implementation science and the role of epidemiology: the why, the what and the how". Department of Epidemiology, Vanderbilt University.

Dr Spiegelman was also appointed as a member of the External Advisory Committee to the Household Air Pollution Investigation Network (HAPIN) Trial. Emory University, Atlanta, GA. September 2017.

Professor Walter Willett appeared on the WBUR Open Source program with Christopher Lydon at 9 pm on November 16, 2017. The live topic was about food, obesity and malnutrition.

Amina Gueye, Administrative Assistant, was a Winter 2017 nominee for the ACE Award, which acknowledges Harvard Chan School staff for their efforts in our workplace.

REDUCED FERTILITY IN WOMEN NOW LINKED TO PESTICIDES FOUND IN PRODUCE

A new study led by **Yu-Han Chiu**, a postdoctoral fellow in the Nutrition Department, has found that a woman who eats fruits and vegetables containing high amounts of pesticide residue may have a reduced chance of conceiving and bearing children. This study examined 325 women who were undergoing infertility treatment as part of the Environment and Reproductive Health (EARTH) study. Data on the women's diet obtained from FFQs was compared with US Government data on average pesticide residues in fresh fruits and vegetables. This data was used to estimate diet-related exposure to pesticides.

Results from the study indicated that women who ate more than 2 svgs/d of high-pesticide fruits or vegetables, compared with women who ate only 1 svg/d, were 26% less likely to have a live birth and 18% less likely to become pregnant than those women with the lowest exposure.

Some fruits with a high amount of pesticide residue are spinach, strawberries, peppers or grapes. Senior author *Associate Professor Jorge Chavarro*, Associate Professor of Nutrition and Epidemiology, suggested that women who wanted to conceive should limit their intake of these fruits and vegetables and either eat organic versions of them or consume low-pesticide produce, such as onions, avocados or oranges. Chavarro told TIME that "I am now more willing to buy organic apples than I was a few months ago".

Chiu YH, Williams PL, Gillman MW, Gaskins AJ, Minguez-Alarcon L, Souter I, Toth TL, Ford JB, Hauser R, Chavarro JE. Association Between Pesticide Residue Intake From Consumption of Fruits and Vegetables and Pregnancy Outcomes Among Women Undergoing Infertility Treatment With Assisted Reproductive Technology. JAMA Intern Med 2017 Oct 30. doi: 10.1001/jamainternmed.2017.5038.

Read the TIME article: <u>Pesticides In Produce Linked to Women Not Getting Pregnant with IVF</u> (http://time.com/5000869/pesticide-fruits-vegetables-ivf/)

Read a CNN article: Study ties pesticides in food to reduced fertility in women (http://www.cnn.com/2017/10/30/health/pesticides-in-food-fertility-study/index.html)

To read more: https://www.hsph.harvard.edu/news/hsph-in-the-news/pesticides-produce-fertility-women/?utm source=SilverpopMailing&utm medium=email&utm campaign=11.01.2017%20(1)

EATING A REGULAR VARIETY OF NUTS CAN LOWER THE RISK OF HEART DISEASE

A Recent study led by **Marta Guasch-Ferre**, **PhD**, Research Fellow, has found that people who regularly eat nuts, including peanuts, walnuts, and tree nuts, have a lower risk of developing cardiovascular disease or coronary heart disease compared to people who never or almost never eat nuts.

Recently, dietary recommendations have shifted toward diets including higher quantities of plant-based foods over animal-based foods, with most dietary patterns including nuts because of their association with reduced cardiovascular risk factors and unique nutritional composition.

While many past studies focused on nut consumption as a whole, researchers in this study also looked at the association between specific types of nuts—peanut butter, peanuts, walnuts and tree nuts—with major cardiovascular events. Peanuts were included even though they are actually a legume because they have a similar fatty acid and nutrient profile as other nuts.

The study looked at over 210,000 people, including women from the Nurses' Health Study and Nurses' Health Study II and men from the Health Professionals Follow-up Study, with up to 32 years of follow up. The study found a consistent inverse association between total nut consumption and total cardiovascular disease and coronary heart disease.

Participants who consumed five or more servings of nuts a week had a 14 percent lower risk of cardiovascular disease and a 20 percent lower risk of coronary heart disease than participants who never or almost never consumed nuts.

"Our findings support recommendations of increasing the intake of a variety of nuts, as part of healthy dietary patterns, to reduce the risk of chronic disease in the general populations," said **Guasch-Ferre**.

Guasch-Ferré M, Liu X, Malik VS, Sun Q, Willett WC, Manson JE, Rexrode KM, Li Y, Hu FB, Bhupathiraju SN. Nut Consumption and Risk of Cardiovascular Disease. J Am Coll Cardiol. 2017 Nov 14;70(20):2519-2532. doi: 10.1016/j.jacc.2017.09.035. PubMed PMID: 29145952.

To read more: https://www.hsph.harvard.edu/news/hsph-in-the-news/nuts-heart-health/?utm source=SilverpopMailing&utm medium=email&utm campaign=11.17.2017%20(1)

In New York Times: https://www.nytimes.com/2017/11/16/well/eat/nuts-may-lower-your-risk-for-heart-disease.html

DR LAWRENCE APPEL DELIVERS 13^{TH} ANNUAL STARE-HEGSTED LECTURE AT NUTRITION'S 75^{TH} ANNIVERSARY CELEBRATION

(By Hilary Farmer)



Photo by J. Graham Pearsall

The Nutrition Department's 13th Annual Stare-Hegsted Lecture was delivered this year by **Dr Lawrence J Appel** of Johns Hopkins University on November 1, 2017 at the Joseph B Martin Center. The Stare-Hegsted Lecture is given each year by a distinguished leader in nutrition research and policy, and is the department's signature lecture of the year. It is named after Frederick Stare and Mark Hegsted, who were the founding members of the department. Dr Appel (Professor of Medicine; Professor of Epidemiology and International Health; and Director of the Welch Center for Prevention, Epidemiology & Clinical Research at Johns Hopkins University) gave his talk on **Changing the 'real world': Four feeding studies and their impact on nutrition policy.**

Most of Appel's work has focused on 4 feeding studies: The DASH (Dietary Approaches to Stop Hypertension), DASH-Sodium, OmniHeart, and OmniCarb trials. He stressed right at the outset the importance of global prevention of hypertension. For example, in 2010 total hypertension affected 31.1% of the total population, with its resulting global burden of disease affecting 1.4 billion people. This problem is worse in low- and middle-income countries. Thus, the Big Picture as Appel sees it is that worldwide, elevated blood pressure is the leading cause of preventable deaths in all countries. It is so prevalent that 90% of us have a chance of developing it!

One way of preventing it is through dietary intervention trials, which include feeding studies, behavioral interventions, pill supplements, and mixed interventions. Perhaps Appel is best known for his DASH diets, which involve some combination of fruits, vegetables, low-fat dairy, whole grains, nuts, poultry, fish, reduced saturated fats, red meat, sweets, and sugar-sweetened beverages. Findings from various DASH studies have seen a reduced risk in all-cause mortality, with blood pressure being significantly lowered in all groups—especially African-Americans and people with hypertension. Added benefits include lower LDL cholesterol. In fact, the DASH diet has proved to be effective in lowering blood pressure by an amount equal to certain BP medications.

The DASH study was launched at 4 centers in the US, including at Harvard, in 1993. Appel noted that **Dr Frank Sacks** (Professor of Cardiovascular Disease Prevention) of the Nutrition Department played a key role in these early studies. Because DASH was originally a feeding study, food was provided to 459 subjects who had an average age of 46. The original study was designed to test a whole-diet approach rather than a single-nutrient one. The participants were compared with a control group who consumed an "average US diet" and a group with a produce-heavy regimen. Of the three groups, DASH proved most effective in lowering blood pressure. Appel has also found that sodium reduction greatly reduces blood pressure, especially in African-Americans, hypertensives, and older adults. Overall, then, the best approach to lower blood pressure is by combining a DASH diet with reduced sodium intake.

Appel managed to keep his talk light at various times when he gently poked fun at the "Wisconsin connection" in the Nutrition Department (*Drs Stare, Hegsted, Willett,* and *Rimm,* to name a few). He also lamented the fact that the DASH diet was the best diet you never heard of, and might have become better known to the general public if it had a catchier name like the South Beach Diet!

Dr Appel concluded his talk by noting that the effects of diet on blood pressure are substantial, that dietary changes have the potential to dramatically reduce racial disparities in blood pressure, and that feeding studies are a powerful research tool. One future direction to reduce the global burden of disease might also be to develop and test culturally relevant healthy dietary patterns in non-Western populations.

For more coverage:

https://news.harvard.edu/gazette/story/2017/11/harvard-event-examines-impact-of-dash-diet/?utm source=SilverpopMailing&utm medium=email&utm campaign=11.06.2017%20(1)

https://www.hsph.harvard.edu/nutrition/2017/11/02/75-anniversary/

MONDAY NUTRITION SEMINARS

The Department of Nutrition holds its weekly **Monday Nutrition Seminar Series** every Monday throughout the academic year. The talks are varied, but they highlight the many different aspects of cutting-edge research that is currently being conducted in the fields of nutrition and global public health. These seminars are held from **1:00-1:20 pm in Kresge 502** at the Harvard T.H. Chan School of Public Health. The seminars are free and open to the public.

The following speakers will discuss their work in December:

December 4 **Dr. Mandy Brown Belfort**, Assistant Professor of Pediatrics, Children's Hospital (NGHP)

December 11 **Dr. Zhenglong Gu**, Division of Nutritional Sciences, Cornell University "Mitochondrial DNA Mutation and Diseases"

WINTER RECESS

Our Monday Nutrition Seminar Series will resume on January 22, 2018

RECIPE CORNER

(Contributed by Elena Hemler, Program Coordinator)

Homemade Hummus Recipe



Ingredients:

- $1\ 15\ \text{oz}$ can chickpeas or $^{3}\!\!4$ cup dried chickpeas (if using dried chickpeas follow the instructions below to cook them)
- 2 cloves garlic
- ½ teaspoon salt
- ¼ teaspoon cumin
- 3 tablespoons lemon juice (or more to taste)
- 1/4 cup water
- 2 tablespoons olive oil
- 3-4 tablespoons tahini

Instructions:

Mix all ingredients in food processor and blend.

(If using dried chickpeas follow these instructions before combining with other ingredients: Soak in cold water for 12 hours and drain. Put the chickpeas in a pot with plenty of water and bring to a boil. Cover, lower the heat and allow to simmer for approximately one hour.)

NUTRITION DEPARTMENT CELEBRATES ITS 75 YEARS WITH STUDENT AND POSTDOC POSTER SESSION



A major highlight of the Nutrition Department's 75th Anniversary Symposium was a poster session that showcased the current work of its students and postdoctoral fellows. There were 35 posters presented by students and postdocs, with 5 more informational posters by various faculty. These 40 posters lined the corridors outside of the auditorium so that visitors and attendees could easily view the department's current work. Visitors were especially awed by a special poster created by **Brett Otis**, Digital Media Communications Coordinator, that showed a timeline of major milestones in the departmental since 1942.

The following people were winners of this poster competition:

Ambika Satija, post-doc: "Healthful and Unhealthful Plant-Based Diets and the Risk of Coronary Heart Disease"

Gong Zeng, post-doc : "Frequent Consumption of Meals Prepared at Home is Associated with Lower Risk of Type 2 Diabetes Mellitus"

Alvin Tran, student: "Calorie Changes in U.S. Convenience Stores and Pizza Restaurants From 2013 – 2016"

Laura Zatz, student: "Graphic Warning Labels Curb Purchasing of Sugary Drinks"



Nutrition Source Updates

Hannah Cory, Doctoral Student, Selected as a RWJF Health Policy Research Scholar:

https://www.hsph.harvard.edu/nutrition/2017/10/17/hannah-cory-selected-as-health-policy-research-scholar/

Prioritize Plants for Healthy Holiday Cooking

5 recipes for your holiday table that maximize flavor and minimize meat.

https://www.hsph.harvard.edu/nutritionsource/2015/11/09/prioritize-plants-for-healthy-holiday-cooking/

Food Feature: Sweet Potatoes

True to their name, this popular root vegetable has a naturally sweet flavor, which is further enhanced through cooking methods like roasting.

https://www.hsph.harvard.edu/nutritionsource/sweet-potatoes/

Nuts for the Heart

A new study adds to research linking nut consumption with reduced heart disease risk. https://www.hsph.harvard.edu/nutritionsource/nuts-for-the-heart/

Science of Flavor: Cruciferous Vegetables

Brassicas like Brussels sprouts release their flavor when you chop, cook, and chew. See this culinary chemistry in action. https://www.hsph.harvard.edu/nutritionsource/2016/11/21/science-of-flavor-cruciferous-vegetables-brussels-sprouts/

Healthy Holiday Gift Guide

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

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

Eat, Drink, and Be Healthy in 2017

Dr. Walter Willett discusses what's new—and what isn't new—in the third edition of his evidence-based guide to healthy eating.

https://www.hsph.harvard.edu/nutritionsource/2017/10/15/eat-drink-and-be-healthy-willett/

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/)

NUTRITION HAPPENINGS AROUND HARVARD

DIVISION OF NUTRITION AT HARVARD LONGWOOD NUTRITION SEMINAR 2017-2018

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)*except January

December 5, 2017 Melinda Dennis, MS, RD, LDN Celiac Center, Division of Gastroenterology, Beth Israel Deaconess Medical Center &

Jocelyn Silvester, MD, PhD Director of Research, Celiac Disease Program, GI, Hepatology & Nutrition Boston Children's Hospital

"Optimizing Nutrition when the Gluten Free Diet Is Not Enough"

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

For further information: contact Dr. Christopher Duggan or Barbara Ainsley @ 617-667-2604 christopher.duggan@childrens.harvard.edu or bainsley@bidmc.harvard.edu