

Tufts

NUTRITION

BIG FAT QUESTIONS

Solid answers on a
slippery subject

PLUS: WELL, INC. • WHAT MY R.D. TRAINING LEFT OUT • AID IN AFGHANISTAN

Pots, Pans and Alzheimer's

For this installment of "Ask Tufts Nutrition," Alexis Howard, NO8, a clinical dietitian at Tufts Medical Center, serves as our expert.

Q: Some years ago, I remember reading that researchers suspected aluminum contributed to the development of Alzheimer's disease. They recommended caution when cooking in aluminum pans, using antacids containing aluminum, etc. There continues to be much research into the causes of Alzheimer's, but I have not read anything recently about aluminum. Is it safe to prepare food in aluminum pans; line baking pans with aluminum foil so brownies and bars can be removed easily; wrap food in aluminum foil before storing in the refrigerator? I have tried cooking in copper, stainless steel and enamel-coated pans, but I still find that aluminum pots and pans work best.

A: The reason for dwindling discussion surrounding the link between aluminum and Alzheimer's disease is the lack of sound evidence to support the theory. After exploring the hypothesis originally presented in the 1960s, experts have concluded that there is no cause-and-effect relationship between aluminum exposure and risk of Alzheimer's disease. Put your mind at ease with the knowledge that 99 percent of the aluminum we may consume passes through our digestive tract without even being absorbed. The remaining 1 percent that may be absorbed is

readily excreted by the kidneys. Rest assured that you can continue to use your aluminum cookware that most likely "works best" because aluminum is an excellent conductor of heat. It is also okay to use aluminum foil and foods packaged in aluminum containers.

As for current research related to Alzheimer's disease, the verdict is still out on the exact cause for the plaques and tangles that cause brain cell damage. Researchers are exploring the hypothesis that because of its inflammatory nature, Alzheimer's disease has similar risk factors to heart disease. Nutrition research is now focusing on the possibility that specific nutrients, foods or dietary patterns may decrease the risk of Alzheimer's. Promising areas of research suggest that achieving and maintaining a healthy body weight may decrease risk for the disease. There may also be links between a healthy mind and a Mediterranean diet, which encompasses foods rich in omega-3 fatty acids (salmon, tuna, mackerel, walnuts) and antioxidants (fruits and vegetables). More research is needed before conclusive recommendations can be made.

Please send your questions for future installments of "Ask Tufts Nutrition" to Julie Flaherty, Tufts University Office of Publications, 80 George Street, Medford, MA 02155. Or send an email to julie.flaherty@tufts.edu.

contents

FALL 2009 VOLUME 11 NO. 1

features

6 Beyond Calories

Scientist Thomas Hughes, N87, wants researchers to consider medical causes of weight gain.

By Marjorie Howard

COVER STORY

9 Fat Chance

After decades of love-it-or-hate-it diets, it's time to make nice with the greasy stuff. *By Helene Ragovin*

14 Well, Inc.

At some companies, being healthy is part of the job.

By Julie Flaherty

16 "As I Was Saying..."

We check in with our community of bloggers.

21 The Trouble in Afghanistan

Aid can destabilize a country when it is aimed at security goals instead of humanitarian needs.

By Taylor McNeil



14

departments

4 A LA CARTE

RESEARCH IN BRIEF

24 UNIVERSITY NEWS

THE WIDER WORLD OF TUFTS

25 ON CAMPUS

FRIEDMAN SCHOOL NEWS

29 ALUMNI NEWS

34 BEYOND BOUNDARIES

PROVIDING THE MEANS FOR EXCELLENCE

36 DONOR RECOGNITION



6

Cover photo by Vito Aluia



Katie Cavuto Boyle
cooks against the
clock on *The Next*
Food Network Star.

Still Shining

WHEN WE LAST SAW KATIE CAVUTO BOYLE, N04, she was preparing for season 5 of *The Next Food Network Star*, the TV reality show that pits 10 unknown “real-life” chefs against each other for a chance at fame and, presumably, fortune.

Boyle made it halfway through the 10-week series, which aired over the summer. While she didn’t land her own Food Network show, the experience did provide her and her Philadelphia-based cooking and nutrition business, Healthy Bites, with unprecedented exposure.

“I’m proud of what I achieved,” Boyle says. “It was a stepping stone, and it’s given me the opportunity to run full steam ahead.”

Hits to the Healthy Bites website (www.healthybitesdelivery.com) have almost quadrupled, Boyle says, and Healthy Bites received a “Best of Philly” award from *Philadelphia Magazine*. She has added a well-received series of cooking classes to the business and has been doing appearances and tastings in the Philadelphia area with fellow contestant Michael Proietti. In addition, Boyle now writes for the *Healthy Eats* blog (<http://blog.healthyeats.com>) and occasionally for *Grid*, a regional Philadelphia magazine about sustainability.

A cookbook and a spokesperson deal are also in the works, she says.

“I’m using this opportunity to get my voice heard as much as possible,” she says. The message she carries is one of “green cuisine”: the delights of nutritionally sound, farm-to-table cooking. “It was a little surprising to me that that message wasn’t better received” on the show, she says. “I have a business that thrives on people interested in healthy food and lifestyle.”

“Being an athlete my whole life, it was nice to be back in a setting where you’re really pushing yourself,” says Boyle, a former competitive gymnast. “As much as the selection committee might not always have had the nicest things to say, I was twice as hard on myself.”

—HELENE RAGOVIN

TALK TO US

Tufts Nutrition welcomes letters with concerns, suggestions and story ideas from all its readers. Address your correspondence, which may be edited for space, to Julie Flaherty, Editor, Tufts Nutrition, Tufts University Office of Publications, 80 George Street, Medford, MA 02155. You can also fax us at 617.627.3549 or e-mail julie.flaherty@tufts.edu.

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Great Beginnings ... More to Come



WELCOME BACK TO WHAT IS ALREADY AN AMAZING school year. The entering class for 2009–10, the largest in the school's history, represents a wide range of experiences that reflect the complexity of nutrition. One of the richest rewards of serving as dean of the Friedman School is the opportunity to interact daily with our students, faculty and alumni, each of whom

stimulates my thinking, challenges my assumptions, participates in dialogue and augments the breadth and depth of knowledge that I bring to nutrition.

Take, for example, Tom Hughes, an alumnus who was the speaker at the school's graduation in May. One of his key messages was to challenge yourself, to challenge your thinking, because some of the greatest advances in health and nutrition have occurred as a result of questioning the status quo (see stories, pages 11 and 28).

No place was this message clearer than at the Friedman School Symposium, which took place in September (see story, page 25). The first half-day was devoted to a discussion of front-of-pack labeling. The audience was able to hear the range of strategies that have been implemented in supermarkets and on products to aid consumers in making better food choices. The panel discussion that followed was lively, passionate and rich.

A full day of the symposium was devoted to pediatric obesity. Massachusetts Commissioner of Public Health John Auerbach opened this session and eloquently described the innovative approaches the state is using to combat childhood obesity. The commissioner clearly described the challenges of linking science to programs and policies.

As the scientific reputation of the symposium continues to grow, it is not surprising that this year saw the highest attendance to date, due in large part to the many people who connected through video conferencing. Participants who joined the symposium online told us that they felt like they were sitting in the audience.

September was a busy month. On September 10, the Friedman School launched the Friends Council, a network of individuals committed to nutrition. In October, the Friends Council met at a breakfast during the American Dietetic Association meeting in Denver and developed an ambitious agenda for the coming year. The council will continue to interact regularly through e-letters, attendance at Friedman-sponsored events and virtual participation in school seminars and events.

Also in September, I was pleased to represent the school at a Washington, D.C., meeting on global malnutrition. The meeting included the major United Nations agencies involved with nutrition, along with bilateral agencies, international non-governmental agencies and academics. The focus was on a global action plan to address the daunting challenges of combating malnutrition. New models are needed to achieve more expeditious progress in improving nutrition. We know a lot. Now there is an imperative to link science to action.

The Friedman School contributed a day of lectures on capacity-building in food and nutrition as part of the International Nutrition Congress, held in Bangkok and sponsored by the International Union of Nutritional Science (IUNS). The IUNS meeting occurs every four years and provides an opportunity for scientific organizations involved in nutrition to meet, discuss and debate. One of the biggest challenges we face is to identify how cutting-edge science can be translated into policies and programs. The IUNS meeting also included a reception sponsored by the Tufts Alumni Association in the region. A great time was had by all.

I am looking forward to an exciting and productive year.

EILEEN KENNEDY, D.SC



See-food

PEOPLE WHO EAT DIETS HIGH IN THE OMEGA-3 FATTY ACIDS FOUND in fatty fish may have some protection against one of the most common causes of vision loss in people over age 60.

Age-related macular degeneration (AMD) is a progressive disease that attacks central vision. In a study by scientists at the Laboratory for Nutrition and Vision Research at the Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA), people who consumed higher amounts

of the fatty acids DHA and EPA showed a slower progression of the eye disease.

The study looked at nearly 3,000 men and women, ages 55 to 80, who were participating in an eight-year supplement trial, the Age-Related Eye Disease Study of the National Eye Institute. That trial revealed that participants who received a supplement containing vitamins C and E and zinc experienced a slower progression of their AMD.

When the researchers looked at progression to advanced AMD, diets high in the omega-3s had their own protective effect. But the researchers note the supplements seem to hamper the omega-3s' benefits during the early stages of the disease.

"Participants with early stages of AMD in the placebo group benefited from higher intake of DHA, but it appears that the high-dose supplements... somehow interfered with the benefits of DHA against early AMD progression," says senior author Allen Taylor, Ph.D.

Still, both the supplements and the omega-3s helped during the later stages of disease. And for those participants who also reported eating a diet of low-glycemic index foods (think whole grains instead of refined carbohydrates), the risk of progression to advanced AMD was even lower.

The study appeared in the *British Journal of Ophthalmology*.

CURRY FAVOR

In a recent issue of the *Journal of Nutrition*, Friedman School Professor Mohsen Meydani, D.V.M., Ph.D., and his colleagues published the results of their research showing that curcumin, a substance found in the curry spice turmeric, kept mice from gaining weight.

Meydani, who directs the Vascular Biology Laboratory at the HNRCA, became interested in curcumin because of its ability to inhibit the formation of new blood vessels in cancer tumors, a process called angiogenesis. Meydani and his colleagues wondered if curcumin would work the same way on fat tissue—suppressing angiogenesis and preventing the fat from growing and expanding.

For their research, they fed two groups of mice the same high-fat diets for 12 weeks. One group, though, also received curcumin supplements. The curcumin did not affect appetite: each group ate the same amount of food. But the mice receiving the supplements did not gain as much weight as the mice that did not. Not only was fat tissue suppressed, says Meydani, but the mice receiving curcumin had lower blood cholesterol levels and less fat in their livers.

Meydani is looking to continue his curcumin research, this time with people. He noted that dozens of NIH-funded clinical trials are looking at curcumin, which seems to show promise for a variety of conditions.



GOOD RIDDANCE, RINDERPEST



A deadly cattle disease has been eradicated from Ethiopia.

Rinderpest, a deadly cattle plague that has threatened the nutrition and livelihoods of East Africans for more than a century, has been eradicated in Ethiopia, thanks in part to a team from the Feinstein International Center (FIC) and Tufts School of Medicine.

A key contribution came from Jeffrey Mariner, D.V.M., V87, a research assistant professor

in public health and community medicine at Tufts, who in 1990 reformulated a rinderpest vaccine so it could be transported to rural areas without refrigeration. The FIC's Berhanu Admassu, D.V.M., and Darlington Akabwai, D.V.M., assisted the Ethiopian government by developing ways to train livestock owners in remote areas of the country as community-based animal health

workers. Most of the farmers could not read or write, but mastered the cattle vaccination process in special training courses. Their ability to monitor for flare-ups following the vaccinations was crucial to conquering the disease.

Rinderpest surfaced in Africa in the 1890s, initially killing up to 90 percent of all herds on the Horn of Africa as well as in southern Africa. Untold thousands of Africans, who depended on the cattle for food, starved to death. Since then, periodic epidemics have severely damaged the food supply and the economy.

"Eradication of rinderpest is an incredible turning point for East Africa," says Peter Walker, Ph.D., director of the FIC and the Irwin H. Rosenberg Professor of Nutrition and Human Security at the Friedman School. "It alleviates food insecurity and strengthens the economy, and is a step towards meat exports. Ultimately, we hope the eradication will result in a larger and healthier cattle population, and we'll see fewer of the violent cattle-rustling raids that plague the region."

Smoking Eats into Food Budgets

Here is yet one more way that smoking is bad for you: In developing nations, a parent's tobacco habit can take a substantial bite out of the family food budget.

The finding is based on surveys of 33,000 households in rural Java, Indonesia, by Steven Block, Ph.D., an associate professor at the Fletcher School, and Patrick Webb, Ph.D., a professor at the Friedman School. They found that the average family with at least one smoker spends 68 percent of its typically scarce income on food, 10 percent on tobacco and 22 percent on everything else. They compared this to the budget of the average non-smoking family, which spends 75 percent of its income on food.

That reduced food budget seems to be enough to affect the health of the children. The study found that smokers' children

tend to be slightly shorter for their ages than the children of non-smokers, a sign that their diets were nutritionally inferior.

"Smoking has a strong, albeit indirect, impact on child malnutrition via its displacement effect on food consumption," the researchers write. "Our results further suggest that the nutritional consequences of this effect could be mitigated by households substituting toward lower-quality calories as their cigarette expenditures increase."

The World Health Organization estimates that annual worldwide deaths from tobacco-related illness were almost 5 million per year in 2000, a figure that is projected to rise to 10 million per year by 2030. Seventy percent of these illnesses are



expected to be in developing countries.

The study was published in the October issue of the journal *Economic Development and Cultural Change*.

Beyond Cal

In confronting the obesity epidemic, scientist Thomas Hughes urges researchers to consider medical causes of weight gain

OPRAH WINFREY'S BATTLE WITH HER weight is well known to TV audiences who have watched the talk show host shed lots of pounds several times, only to gain them back. Her struggle, going back more than 20 years, is evidence that for some people, the dieting wars may not end in victory, says Thomas E. Hughes, Ph.D., N87, A10P.

If Winfrey, who has a personal trainer, a personal chef, coaches and unlimited resources, can't battle the bulge, what does it mean for the rest of us? "She's intelligent and not lacking in discipline—look at what she's done with her career," Hughes says. "So if controlling body weight was nothing more than discipline, wouldn't someone like her be able to solve this?"

We are quick to blame obese people for their problems, he says. But just maybe it's not entirely their fault.

Hughes is well versed in the calories-in-equals-calories-out prescription for weight control. He spent 20 years at the pharmaceutical company Novartis, where he researched diabetes prevention and treatment, and is now the chief executive officer of Zafgen, a Cambridge-based company working to develop a drug to treat obesity. He has heard about the traditional theories to explain weight gain—from processed food to video game overload—yet he's still not convinced we've tracked down every lead in the search for why, as a society, we have gotten so fat so quickly. What if there are other factors at play that can't be controlled by lifestyle changes?

BY MARJORIE HOWARD

PHOTOGRAPHY BY JOHN SOARES

ories



Thomas Hughes

3 MILLION AND GAINING

The obesity epidemic, he reasons, started in the 1980s. Back then, some 130,000 Americans weighed more than 300 pounds. By 2004, the number had climbed to 3 million.

"I don't know what is available now that wasn't available then," says Hughes, a Friedman School overseer. There are certainly people who simply eat too much and don't exercise. But there may be other reasons—medical reasons—for obesity that have not been fully studied.

Consider, for example, adenovirus 36, the only human virus linked to obesity. This adenovirus "appears to be unique in

Perhaps obesity is to the 21st century what peptic ulcers were to the middle of the 20th century: something once blamed on the sufferer and only later found to have other causes. People with ulcers were once labeled Type A, hard-driving workaholics who wouldn't have ulcers if they could only learn to relax. Yet in 1994, it was widely recognized that a bacteria, *Helicobacter pylori*, was the real cause of most stomach ulcers.

There is no doubt, Hughes is quick to say, that a societal "perfect storm" has created just the right conditions for obesity. Food is cheaper and more abundant than ever, with supermarkets and fast-food restaurants offering plenty of processed, calorie-laden foods.

A societal "perfect storm" has created just the right conditions for obesity.

that it can change the way the stem cells that make fat tissue in our body function," Hughes says. If adenovirus 36 infects fat cells, he says, "they lay down fat much more aggressively and become super fat cells." And, he adds, if you measure the antibodies to the virus in a person's blood, you'll find a dramatic over-proportion of obese people infected with this virus.

Another potential cause of obesity, he says, is the stress that occurs to the fetus during development. "You can reproduce this in animals over and over again: When there is stress, it leads to obesity, and there is developing data that say this may be happening in people, too."

A third possibility is intestinal bacteria, a finding Hughes calls "fascinating." The studies that have been done so far suggest if you take bacteria from the guts of obese animals and feed them to lean animals, they become obese. Perhaps, he says, people developing obesity have bacteria that are more efficient at extracting calories, or thin people may have the opposite problem: bacteria that are poor at using energy.

If the scientific community acknowledged that obesity may have numerous causes, then, Hughes says, researchers might discover even better leads and "insert them more directly into the current discussions around the problem."

We also live in a social and cultural environment where people are less likely to exercise. "Things are easier to get to; there are fewer sidewalks, less recess at school. A convenience lifestyle has evolved," he says.

And while all that makes sense in understanding how obesity has reached epidemic proportions in America, something still bothers Hughes: "Why is it that even within individual families, where you have people living together who are genetically similar, some people will become obese and some will not?"

While at Novartis, Hughes worked with scientists from the Broad Institute in Cambridge to study the underlying genetic causes of diabetes. "We hoped going into this we would hit home runs, that genes would pop out at us that would explain the extent of the problem," he says. Instead they found a fairly large number of genetic associations to diabetes and obesity but nothing that explained it to an appreciable extent. "So what we thought would be a rich vein of ore, the mother lode of information that would teach us about how to treat diabetes and obesity, came back with an unimpressive list of things that pointed more to additional mysteries," Hughes says. "This impressive lack of concrete findings about new obesity genes has not permeated public opinion."

Hughes came to Zafgen after giving a lot

of thought to the best way to treat and prevent diabetes. It became clear, he says, that obesity is "one of the biggest underlying drivers" for the disease. "In this modern age, the most addressable, preventable or treatable cause of diabetes is obesity—yet in the environment I was in, in the pharmaceutical industry, we weren't able to address the problem in a way I found satisfactory."

A THIN DRUG?

Zafgen is developing an obesity treatment specifically for people with "hungry adipose." People with this overactive fat tissue (it's evident in some individuals and not in others) are more likely to store calories that otherwise could be used by the body for energy. Zafgen's compound, based on observations made by its co-founder, Maria Rupnick, M.D., unlocks the defect of hungry adipose, allowing fat to leave the tissue and be used by the body. In obese mice, the compound suppresses food intake and causes rapid and sustained fat loss, returning their body size and makeup to that of normal, lean mice. Clinical trials in humans will begin next year.

While new therapies like this offer some hope to obese people, Hughes says these approaches only treat the problem without addressing the underlying cause or causes. Maybe, he says, a vaccine will be developed for the adenovirus or there will be better diagnostic tools to assess whether people have a predisposition for obesity "that is not simply related to how much television they watch. Obese people are told 'you're a bad person; what's wrong with you?' You would never say something like that to someone who has schizophrenia or hypertension or cancer or HIV."

If Hughes is right and some people were to learn their bodies are the enemy in their battles with weight loss, at least they will have the ability to cope with it, he says. "You can accept it and become obese. You can fight it and maybe it will be a lifelong struggle, like Oprah's." And maybe, more research will lead to a cure. **TN**

Marjorie Howard, a senior writer in Tufts' Office of Publications, can be reached at marjorie.howard@tufts.edu.



FAT CHANCE

After decades of love-it-or-hate-it diets,
it's time to make nice with the greasy stuff

BY HELENE RAGOVIN PHOTOGRAPHY BY VITO ALUIA

IT'S BEEN A TEMPESTUOUS RELATIONSHIP, THESE PAST 40 YEARS OR SO, BETWEEN AMERICANS AND dietary fat. We love it—in our premium ice creams, crispy deep-fried chicken and butter-drenched buckets of popcorn. We hate it—for what we've been told it does to our waistlines and our hearts. We've flirted with fake potato chips and ersatz cream cheese. Then we've turned around and embraced diets that let us gorge on steak and bacon.

Is it possible to have a healthy relationship with fat?

Yes, say researchers. In fact, for almost a decade the nutrition establishment has been recommending moderate fat intake—there's no need to be swept away by either a low-fat or high-fat passion. And, they stress, it's important to distinguish among the various types of dietary fat.

"If you look at the accumulated body of data, what it's really suggesting is that consuming unsaturated fat has health benefits, especially when used to displace saturated and trans-fatty acids from the diet," says Alice H. Lichtenstein, D.Sc., the Stanley N. Gershoff Professor of Nutrition Science and Policy at the Friedman School. Lichtenstein has devoted much of her research to the effects of dietary fats on lipoproteins (they carry cholesterol through the blood) and cardiovascular health.

The USDA's most recent set of Dietary Guidelines, released in 2005, recommend that adults get between 20 and 35 percent of their daily calories from fat. That allows a little more latitude than previous guidelines, which called for no more than 30 percent of total calories from fat. And it certainly shows a more flexible attitude than some of the advice that was being dispensed during the height of the low-fat-crazed '90s, when some well-publicized diet plans were calling for as little as 10 percent of total calories from fat.

But regardless of recommendations, most Americans are still eating too much of the wrong kinds

of fat. The American Heart Association recommends that saturated and trans fats should be limited to 7 percent of total calories. According to data from the National Health and Nutrition Examination Survey (NHANES), in 2005–06, adult men and women consumed about 11.3 percent of their daily calories from saturated fat.

THE UPS AND DOWNS


On a molecular level, fats are made up of chains of carbon and hydrogen, with some oxygen atoms at one end. Depending on the level of interconnectedness between the carbon and hydrogen atoms within the fat chain, fats can be either saturated, polyunsaturated or monounsaturated.

There is also the phenomenon of trans-fatty acids, commonly referred to as trans fats—unsaturated fats that behave in the body like saturated fats. While some trans fats occur naturally, most trans fats in our diet are man-made, the result of a process known as hydrogenation.


All fats—sat, trans, poly, mono—contain nine calories per gram, more than twice the calorie content of proteins or carbohydrates. So a diet high in fat may be higher in calories—thus, the concern

WHAT TO EAT


Lost in the supermarket? Perplexed by the vague labeling and confusing claims about the amount and type of fat in your food? Unsure whether you should be buying a butter-like spread with added plant sterols, or fat-free milk with added omega-3 fatty acids? Friedman School Professor Alice H. Lichtenstein offers some advice:




LIQUID OILS As long as you're using an unsaturated oil, it doesn't particularly matter in terms of heart health if it's polyunsaturated or monounsaturated. Wherever possible, use them in place of solid fats. Monounsaturates include canola and olive oils; polyunsaturates include soybean, safflower, sunflower and corn oils.




ADDED OMEGA-3s The FDA allows labeling of products with added omega-3 fatty acids. However, products do not have to specify whether those fatty acids are in the form of ALA, EPA or DHA; in most cases, it is ALA. "The human body has a very small capacity to convert ALA to EPA and DHA," Lichtenstein says, and "from what we know, EPA and DHA are the biologically active omega-3 fatty acids that have a relationship between biological outcomes and intake." So added ALA is not likely to provide substantial additional nutritional benefit. Canola and soybean oils naturally contain ALA. Flaxseed and flaxseed oil are also high in ALA, but it is not clear there is any benefit to using them unless they replace fats high in saturated or trans fat.



SHORTENING Trans-fat-free varieties are a good choice, although most recipes can be adapted to use liquid fats.



FISH High in the omega-3 fatty acids EPA and DHA, particularly oily fish such as salmon, trout, tuna and sardines. The USDA and American Heart Association recommend two servings of fish, especially oily fish, a week. At this time, data does not support fish-oil capsules as an equivalent substitute for fish.



BUTTER High in saturated fat. Use sparingly for flavor, if desired, or for occasional special dishes.

REGARDLESS OF RECOMMENDATIONS, MOST AMERICANS ARE STILL EATING TOO MUCH OF THE WRONG KINDS OF FAT.

over the connections between dietary fat, obesity and disease.

After that, things become murkier. A high intake of saturated and trans fats has been tied to higher levels of plasma low-density lipoproteins (LDL), a type of cholesterol that is associated with increased risk of coronary heart disease. But the degree to which these particular fats directly influence cardiovascular disease risk and death rates from heart disease is still being explored. At the same time, scientists are investigating how the ratio of all the fats in the diet affects heart health.

While initial recommendations surrounding fat intake were geared toward people with established risk factors for cardiovascular disease, they were extended to the American population as a whole in the 1960s. As awareness of the connection between saturated fat and cardiovascular risk grew, intake of saturated fat dropped—for instance, U.S. beef consumption declined from a high of 89 pounds per person annually in the mid-70s to about 64

pounds per person in the early part of this decade.

In addition, the proportion of fat calories Americans consumed from beef, pork, dairy products and eggs, the primary sources of fat in the American diet, fell from 50 percent in 1965 to 33 percent in 1994. (However, the proportion of fat Americans consumed from fast-food and takeout—pizza, hamburgers, cheeseburgers, French fries, Mexican food and Chinese food—increased from 1.9 percent to 10.8 percent during that same period.)

And then in the late 1980s, the United States became gripped by a low-fat mania. No-fat and reduced-fat products of all sorts flooded the market, and the 20th century ended to the sound of frantic customers jostling for the last box of Snackwells Devil's Food Cookie Cakes. The legacy of that low-fat orthodoxy is still coloring the way Americans make nutritional decisions—and not necessarily in a good way. People stopped counting calories and started counting fat grams.



CHEESE Stick with low-fat for most uses; use higher-fat cheeses sparingly for special dishes. But don't feel obligated to use non-fat if the taste or texture is unappealing to you.



PALM OIL A saturated fat that offers many of the food-processing benefits of partially hydrogenated fats. Recent research by Lichtenstein and colleagues examined the health implications of using palm oil as a substitute for trans fats, but determined that palm oil did indeed raise LDL levels and would not be a suitable switch. Consider this in the same category as other saturated fats.



MILK For cow's milk, use fat-free (skim) or low-fat (1 percent). For other milks, whether animal-derived (like goat's milk) or plant-derived (like coconut or soy milk), avoid those with more than 1 percent fat.



MARGARINE/SPREADS Trans-fat-free spreads are a good alternative to butter. Some spreads include plant sterols, which have been shown to decrease LDL cholesterol levels; the recommended intake is 2 grams per day. But, says Lichtenstein, that doesn't mean that slathering on more spread will necessarily drive LDL levels even lower. It's also difficult to make sure you're getting a steady dose every day when you're ingesting sterols via a food product. Better, she advises, to talk to your doctor about using daily supplements if you're serious about using plant sterols to lower your cholesterol. Note that sterols will not *prevent* high blood cholesterol.

LARD and COCONUT OIL High in saturated fat, so treat them as such. Although some books and websites promote them as rediscovered health foods, Lichtenstein says there is no reliable data to support the regular use of these fats in a healthy diet.

CHICKEN Lower in saturated fat than beef or pork, but watch portion sizes. Avoid eating the skin or drippings, which is where most of the fat is. For those who avoid thighs or drumsticks because of fat fears, the fat difference between light meat and dark meat is minimal.



“The low-fat craze had unanticipated negative consequences,” says Lichtenstein, director of the Cardiovascular Nutrition Laboratory at the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts. “The feeling was that anything that was non-fat or low-fat was free game to consume as much as you absolutely wanted. People’s body weights increased and we became disillusioned with low-fat foods.”

“Ever since 2000, the Dietary Guidelines for Americans, the National Cholesterol Education Program, the Daily Recommended Intakes, have all said ‘moderate fat consumption,’ ” Lichtenstein emphasizes. “But there is still an extraordinary lag time in translation, in the way it’s been presented to the public.”

Very low-fat diets, those with total fat below 15 or 20 percent, have actually been found to lower plasma high-density lipoprotein cholesterol (the good kind), Lichtenstein says. And polyunsaturated and monounsaturated fats have been shown to have health benefits, like lowering LDL cholesterol.

Omega-3 fatty acids—familiar to anyone who’s walked down the aisle of a supermarket in the past few years, as they have become a popular additive to many foods—are a type of “essential”

polyunsaturated acid, meaning they are vital for biological functioning but cannot be produced by the body and so must be taken in through the diet.

The major types of omega-3s are alpha-linolenic acid (ALA), eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). ALA is found in plant sources, such as canola, soybean, flaxseed and nut oils. EPA and DHA come from marine sources, such as fish. In addition to contributing to cardiovascular health, omega-3s have been tied to a wide variety of benefits such as improved cognitive function and eye health.

LET’S JUST BE FRIENDS

OK—so you can skip the fat-free balsamic vinaigrette and have a couple of tablespoons of real salad dressing. Vegetable oils, after all, are chock full of those sexy unsaturated fats. You can even use butter, sparingly, for flavor. “If you really enjoy a little bit of butter on whole wheat toast in the morning, and you’re not a big meat eater, and you’re a consumer of low-fat dairy—fine,” Lichtenstein says.

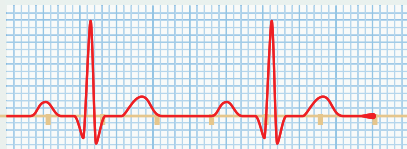
But despite the recent Julia Child revival, you might want to steer away from *Supremes de Volaille a Blanc*. (That’s poached chicken

A BRIEF HISTORY OF FATS

1957 The American Heart Association (AHA) proposes that modifications of dietary fat intake would reduce incidence of coronary heart disease.



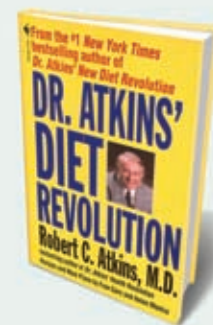
1960



1961 W.B. Kannel et al. publish “Factors of Risk in the Development of Coronary Heart Disease,” part of the Framingham Heart Study, advancing the connection between dietary fat and cardiovascular disease.

1970

1972 Robert Atkins publishes *Dr. Atkins’ Diet Revolution*, promoting unlimited intake of high-fat foods and strict limits on carbohydrates. “Atkins” will become shorthand for opposition to low-fat diets.



1982 Nutrition committee of AHA recommends lower-fat diet to general population.

1980



1977 A U.S. Senate committee issues “Dietary Goals in the United States,” focusing attention on diet and heart health.

breasts using no less than six tablespoons of butter and a cup of heavy cream.)

“There are some foods where low-fat is preferred—dairy and meat,” Lichtenstein repeats. “Those are the types of food where the fat is predominantly saturated fat, and that’s where we want people to cut down. Use leaner cuts of meat and smaller portions and non- and low-fat dairy products.”

And avoid trans fat—something that’s becoming easier to do as manufacturers have removed it from many foods. For years, trans fats were a godsend to food manufacturers, who used it to extend shelf life and add texture to processed foods. In fact, using partially hydrogenated oils was once considered a nutritional advantage over the use of saturated fats, such as lard.

The discovery in the early 1990s that trans fats actually posed a risk to cardiovascular health eventually led to consumer demand, and even government action, for their removal from the food supply. Since 2003, packaged foods have been required to list their trans fat content on their Nutrition Facts labels, and in 2006, New York City’s Board of Health approved a pioneering measure banning the use of partially hydrogenated fat, the major source of

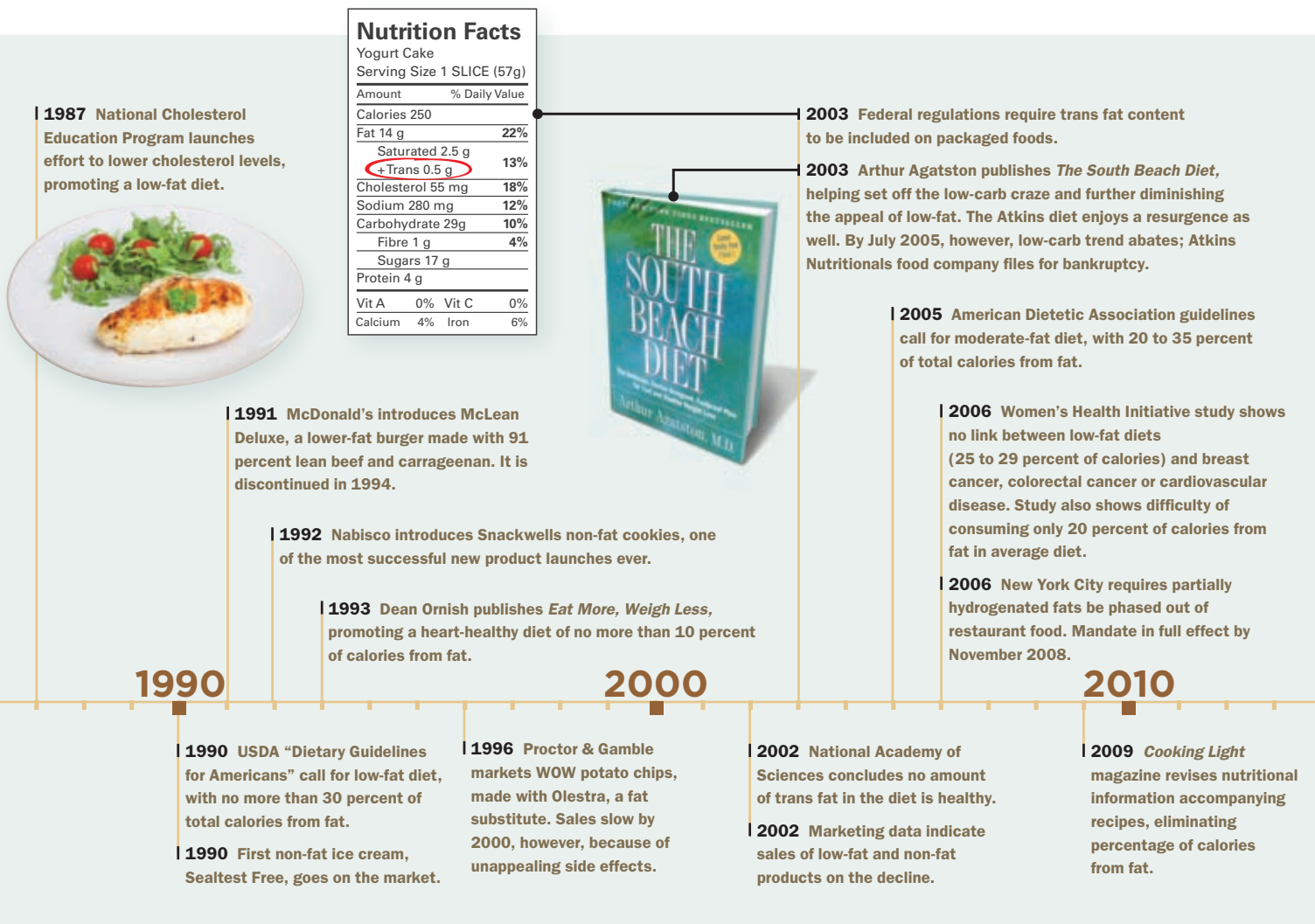
dietary trans fats, in the city’s restaurant food.

Within this “good fats-bad fats” split, can further distinctions be made? Is it better to use canola oil than safflower oil? Are trans fats worse than saturated fats?

“Those differences are not what’s important,” Lichtenstein says. “As far as polyunsaturated or monounsaturated, the pendulum of scientific evidence keeps swinging a little bit in each direction. As far as saturated fats or trans fats, the best thing we can do for ourselves is to minimize intake of both. What’s important is to get people to shift the type of fat they consume from saturated to unsaturated; to get producers to shift the type of fat they use; and for individuals to get total energy intake under control.” Which means, yes, calories still count.

“Everyone gets revved up about this oil being better than that oil,” Lichtenstein says. “But when you take more of a bird’s-eye view of everything, that’s not really where the emphasis should be. It should be on the whole diet.” **TN**

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well, inc.



When getting healthy is part of the job

BY JULIE FLAHERTY

STANDING IN A CONFERENCE ROOM surrounded by a group of Tufts Health Plan employees, Janel Ovrut, N07, is dealing as diplomatically as she can with a workplace scourge: the co-worker with the desktop candy bowl. How do you tame her diet-busting generosity, which makes it so easy to grab a handful of M&M's every time you walk to the copier? "If that's you," Ovrut offers, "maybe consider something decorative on your desk instead."

Ovrut, an expert on corporate wellness, creates wellness programs for large companies and gives nutrition presentations relevant to a working person's busy life. Ovrut's monthly seminar at Tufts Health Plan is a welcome perk for employees at the company's Watertown, Mass., headquarters. She covers topics like mindless munching at your desk and healthy brown-bagging.

Companies that embrace corporate wellness do it to make healthier employees, and to help their bottom line. Safeway, a supermarket chain, has a free fitness center at its headquarters, offers gym membership discounts and provides a 24-hour health hotline staffed by a registered nurse. It says it has saved millions by making employees responsible for their weight, smoking, cholesterol and blood pressure. In 2006, it reduced its total health-care spending by 13 percent, and employees who signed up for the company wellness program saved more than 20 percent on their health-care premiums.

At Tufts Health Plan headquarters, healthy living encouragement means a cafeteria with a salad and fruit bars, both discounted 25 percent by the company. A wall with hundreds of paper cut-outs of runners charts the progress of employees who have signed up for a walk/run competition. Signs mark the route of a mile-long indoor walking circuit around the building, which employees can use in the winter. More than a quarter of the building's 1,600 workers belong to the on-site fitness center.

Vanessa Cavallaro, N02; Kimberly Dong, N02; and Kendrin Sonnevile, N02, weren't expecting to get into the corporate wellness business when they started their Boston metro-area nutrition consultancy, Smart Nutrition Application & Practice (SNAP), six years ago. But they quickly found that businesses of all sizes were eager for their services. They were soon crafting nutrition seminars to suit the unique corporate cultures of their client companies.

At their talks at the Massachusetts Bay Transportation Authority, where most of the attendees are men in their 40s and 50s, the discussion is focused on preventing heart disease. Because the train conductors usually can't leave the station during their lunch breaks, the conversation turned to healthy fast-food options and what foods they could bring in coolers.

The level of detail has to be tailored as well. When Ovrut asked employees at MathWorks, a software company, how many cups of coffee they drank each week, she got back calculations like "0.66 cups." They

were all about the numbers and would whip out their iPhones to look up the fat grams in a particular product she might mention.

And then there are the unexpected workplace diet pitfalls that need addressing. Cavallaro went to a local appliance showroom to give a nutrition counseling session and found the showroom kitchens were enticing not only customers but employees with their aromatic cooking demonstrations.

"It's kind of hard to want to eat an orange when you can smell chocolate chip cookies baking all day," she says.

One of the nutritionists' favorite tactics is "taste testing," where they bring in healthy foods for employees to sample. This worked out particularly well at a national wholesale store where Dong recently gave a presentation based on the store's products. "It helps employees become familiar with what the company sells, they learn what healthful options are available, and they get a discount on the food they purchase," Dong says.

Lydia Greene, the vice president for human resources at Tufts Health Plan, said that when the company began its push for a healthier workplace four years ago, it hoped to set a good example as a health insurer, of course, but money was also a factor.

"In the long run we really do believe that this will help health-claim costs," Greene says. Health insurance, she points out, is the company's single largest employee benefit budget item.

A few companies, like Safeway, monitor their employees' health and reward them—through cash rebates or lower insurance premiums—based on how much they improve their Body Mass Index, blood pressure or cholesterol levels. But some people see such programs not as incentives but as penalties for not taking part.

Laurie Barenblat, N04, a healthy lifestyle coach in Texas who has done nutrition presentations for small and large businesses, including

Exxon and State Farm, said that she is all for promoting health, but not punishing employees. "I believe in the carrot and not the stick," she says. Genetics and other factors besides diet and exercise, she points out, can significantly influence cholesterol and blood pressure levels. "They are all good indicators" of health, she says. "But I don't think it's fair to tie a lot of consequences to them."

For companies that prefer a lighter touch, there are Health-E-tips. Companies that subscribe to the service receive weekly or monthly nutrition and exercise tips that they can then forward on to employees through e-mail, post in company newsletters or print on a paycheck stub. They include things like exercises to do at your desk and tips for cutting down on a four-cup-a-day coffee habit. "They really need to be very simple and actionable," says Patricia Bannan, N99, a registered dietitian and consultant for Health-E-tips, "something they can go home and use immediately."

Of course, companies could be offering employees this low-cost benefit to make up for stagnant wages in a tough economy. But Bannan isn't bothered by a company's motivation.

"It can still do good for an employee," she says, "and maybe flip a switch in his head one day and make him do something healthful that he wouldn't normally have done." **TN**

ILLUSTRATION
BY
RICH LILLASH

“As I Was Saying...,

WE CHECK IN WITH OUR COMMUNITY OF BLOGGERS

The only thing Friedman School students and alumni love more than eating good food is talking about it. A scan of their blogs turns up thoughts on getting a weeknight dinner on the table, “putting up” sauerkraut and picking up antibiotics in all the wrong places. From a nutrition policy reformer to a writer with a fixation on seafood, everyone’s got a story to tell.

What My R.D. Training Left Out

...and what the profession still needs to learn BY ASHLEY COLPAART, N10

mY FIRST JOB AS A REGISTERED dietitian was running the Meals for Kids program in Austin, Texas, where we provided healthy meals and nutrition education to underprivileged children. I wanted so badly for these kids to embrace the love of fresh produce and feel a deeper connection with food, but it was a battle. We had a rule that the kids couldn’t bring outside food into our meetings, yet their fingers were stained red with the tell-tale signs of Flaming Hot Cheetos, and I knew that 20-ounce Dr Peppers were just waiting in their backpacks. Sure, I was teaching some of them good food habits, but ultimately they live in bad food environments, and I didn’t know how to change that.

Urged by my supervisor, I joined the Hunger and Environmental Nutrition practice group of the American Dietetic Association (ADA). I was astonished by the online conversations I read about the Farm Bill and the subsidies that were supporting the overproduction of corn and soy, the key ingredients in the cheap snacks that kids love so much. I began to see the causal story of how our food system helped our societal health get where it is today. Yet understanding the agricultural system—and the government policies that made it this way—had not been part of my training to become a registered dietitian. The same is true for most dietitians.

In fact, our own profession hampers us from thinking too hard about the current food system. In 1996 the ADA began

promoting that “all food can fit in a healthy diet,” shifting health responsibility onto the consumer. This is one of the same tactics that the food industry uses, and it’s no wonder, considering how closely the ADA is aligned with the food industry. The expo floor of the ADA’s National Food and Nutrition Conference is testimony to that, with its huge displays from Cargill, ADM, McDonald’s, Monsanto and Coca-Cola. Conventional RD’s argue that these partnerships are crucial to informing the consumer on diet and nutrition, but it also allows sponsors to, as the ADA says on its website, “gain access to food and nutrition leaders who influence and make critical purchasing decisions.”

Perhaps, then, I shouldn’t have been bewildered by the snack provided during

SEPTEMBER 4, 2009

“Roast a Chicken Before Work”

BY EMILY KUROSS, N08, PH.D. CANDIDATE

From *Five and Spice: Fitting real food into a busy life*
<http://fiveandspice.wordpress.com/>

I hauled myself out of bed 5 minutes early, turned the oven to 425 degrees, and while still in my pajamas took out the chicken legs and arranged them with



the skin side up in one layer in a baking pan. I then liberally sprinkled the legs with salt, black pepper, garlic powder (I could have minced several cloves of fresh garlic and rubbed it on the skin instead, but that seemed too taxing to do before I’d had my cup of coffee), and a bit of dried thyme—one of my favorite all-purpose spices. I happened to have a little red wine left in a bottle so I poured a thin layer of this into the pan around the chicken.... I popped the chicken into the oven, showered, got dressed, made coffee, ate breakfast, etc. as the chicken roasted....The only minor problem with the procedure was that I had to pop the still-warm



A BALANCED CAREER
Ashley Colpaart believes
dietitians should take
a more active
role in food policy.

PHOTO: KATHLEEN DOOHER

“As I Was Saying...,,

“I wanted so badly for these kids to embrace the love of fresh produce and feel a deeper connection with food, but it was a battle.”

—ASHLEY COLPAART, N10

the break of an ADA Public Policy Workshop I attended in Washington, D.C.: a small package of Slimfast Protein Chews and a plastic-bottled probiotic drink with fake sugar, thanks to our corporate sponsors. If we cannot even find real food at an ADA event, how can we expect the public to find real food?

Eager to contribute to the formation of food policy, I became the state policy representative (SPR) of the Texas Dietetic Association. Our task was to focus on passing the Dietetic Practice Act, which protects the practice of dietetics specifically to RD's. I am not dismissing the importance of the act in that it ultimately protects the consumer from quackery, but in the meantime, Texas had been crowned with four of the fattest cities in the nation. Many of the boards, initiatives and programs working on a systems level to confront this statistic were absent of RD's, unless they were there representing the Beef Council or the Dairy Council.

This year in the *Journal of Agriculture and Human Values*, Jennifer Wilkins, Ph.D., an expert in nutrition and sustainable food systems at Cornell University, wrote a pivotal article on what she calls “civic dietetics,” which integrates social, environmental and economic sustainability aspects of food choices into dietetics. She sees a growing interest, noting that the ADA created a Sustainable Food Systems Task Force in 2006 and that HEN [Hunger and Environmental

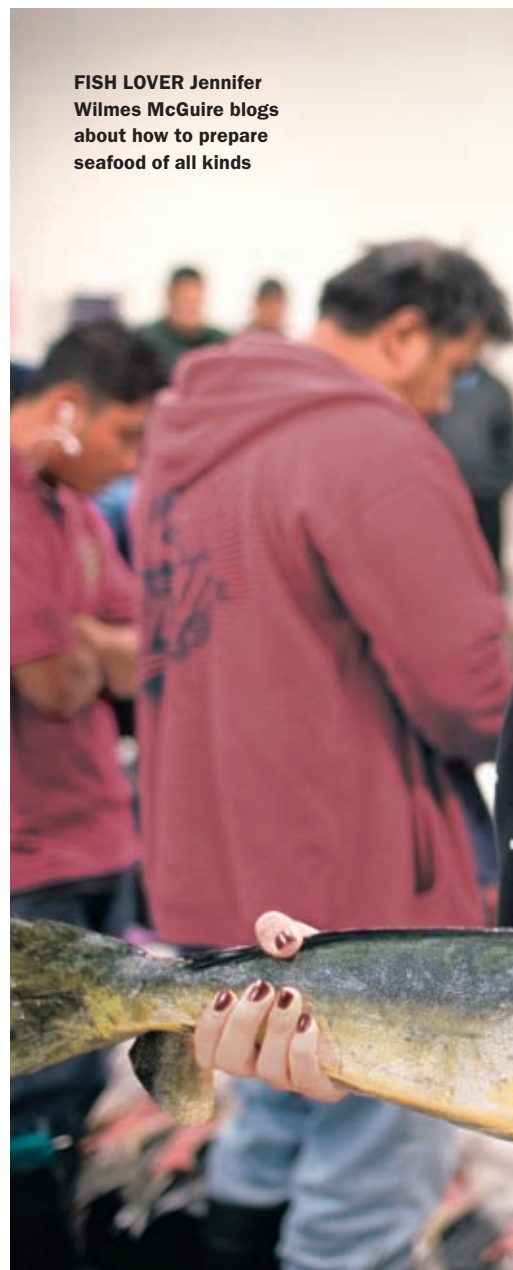
Nutrition] is one of the ADA's fastest growing practice groups. Unfortunately, she also concludes that the profession's orientation towards the individual responsibility for good health, its myopic focus on the role that nutrients play in reducing chronic disease, and its alignment with the very industries that control large segments of the food and agriculture system inhibit it from moving in that direction.

Troubled by these connections, some dietitians have left the ADA, but I've decided to stick with it. I've seen the idea of civic dietetics grow among members of HEN, the student body at the Friedman School and other progressively minded community advocates.

As registered dietitians, it's not enough to be concerned about what products fit the nutrition guidelines; we have to understand how food is grown, why certain foods are grown, what role the food industry plays in policy and how these policies contribute to the very diseases we attempt to rebuke. And then, we have to be agents of change.

Ashley Colpaart, N10, is policy chair and a steering committee member with the Hunger and Environmental Nutrition Dietetic Practice Group of the American Dietetic Association and is communications chair of the Tufts chapter of Slow Foods USA. Her blog, “Epicurean Ideal,” can be found at <http://epicureanideal.blogspot.com>.

FISH LOVER Jennifer Wilmes McGuire blogs about how to prepare seafood of all kinds



chicken into the refrigerator, instead of having time to cool it first, which is a bit of a waste of energy. If I had been French I would have just left it out at room temperature, but I have, unfortunately, taken a few too many food safety classes to feel comfortable with that.

At any rate, it worked fine to refrigerate them, and when I got home, I popped them into the oven at 400 again for about 10-15 minutes while I made some mashed potatoes and broccoli. Voila dinner!



MARCH 6, 2009

“Meat Meets Medicine”

BY REBECCA KLEIN, N08

From Center for a Livable Future
<http://www.livablefutureblog.com>

I stopped by the store the other night to pick up a few essentials. I headed to the back of the store and there before me, squarely in front of the meat section, was a huge sign advertising free antibiotics.



The Life Aquatic

*How goes the blog?
Oh, swimmingly*

BY HELENE RAGOVIN

aS YOU READ THIS, JENNIFER Wilmes McGuire, N06, is probably eating seafood.

And if not, she's likely buying seafood, cooking seafood, blogging about seafood, or, perhaps, testifying before some government panel about seafood. One thing's for sure—not a day goes by that McGuire, manager of nutrition communication for the National Fisheries Institute, isn't involved in something, um ... fishy.

While her job involves interacting with the media, government and other entities on behalf of NFI, a seafood industry trade group, McGuire's most consistent public exposure comes in the form of her aptly titled "Blog About Seafood" (www.aboutseafood.com/health-nutrition/blog-about-seafood). There she details her menu planning, meal preparation, restaurant forays and favorite recipes. Not surprisingly, McGuire eats considerably more fish than the average American—not just because she works for the NFI, but also because she lives in the middle of the ocean. Last January, she moved from Washington D.C., where the NFI is based, to Hawaii, where her husband, a Marine Corps officer,

I couldn't help but laugh out loud (and cry a little on the inside). "There's some refreshing honesty," I thought. Most of the meat available in grocery stores around the country contains antibiotics and antibiotic-resistant bacteria. This is because of non-therapeutic use of antibiotics in food animal production—a practice that is pervasive in this country and has been found to result in antibiotic-resistant bacteria in humans....The sub-therapeutic doses of these antibiotics help resistant bacteria develop—a not-so-happy 200th birthday nod to Darwin and his theory of evolution. These resistant bacteria happily thrive in the meat shipped to stores around the country, where they

live contentedly until the package is purchased and they can continue their happy, resistant lives in new real estate—our bodies. Sure, we co-habitate with all kinds of bacteria, but if a strain that makes us sick is inadvertently bred to resist the medicines that can make us well, we are in serious trouble.

Of course, the inadvertently honest sign wasn't supposed to be in front of the meat section. It had migrated from the pharmacy, which was being quite generous in these hard economic times to offer free medicine to those in need. True therapeutic need should be the only reason for a person, or an animal, to receive antibiotics.

“As I Was Saying...,”

“I was obviously eating a lot of seafood anyway, so I thought, ‘I’ll show how easy and really delicious it can be.’”

—JENNIFER WILMES MCGUIRE, N06

is now stationed. (Check out her blog entry of March 10, 2009, for a shot of the breathtaking view from her *lanai*. Then scroll up for a recipe for Shrimp and Grits Casserole.)

“I actually eat fish, I would say, on the average of four times a week. Because I don’t usually include leftovers of a meal I’ve already blogged about, I eat more fish than is even shown on the blog,” McGuire says.

Current nutritional guidelines, including those from the USDA and the American Heart Association, recommend consuming seafood at least twice a week. The health benefits of eating fish—particularly those oily fish, like salmon, that are high in omega-3 fatty acids—outweigh any concerns about contamination, scientists say. (The government does advise pregnant and nursing women and young children to avoid shark, swordfish, tilefish and king mackerel.) Yet, most Americans fail to reach the two-seafood-meals-a-week goal, even if they’re aware of the recommendations.

“What we found was that people ‘get it’ about the health benefits of eating a seafood-rich diet,” McGuire says. “That isn’t really the barrier to not eating more fish.” What are stoppers, she says, are that people think they don’t like the taste of fish, they think it’s not affordable, or they think it’s challenging to prepare. Through her blog, McGuire hopes to dispel those notions.

“I was obviously eating a lot of seafood

anyway, so I thought, ‘I’ll show how easy and really delicious it can be,’ ” she says. Americans are happily eating animal protein already, she notes—in 2007, per-capita consumption of beef topped 100 pounds and poultry was just shy of 75 pounds. But seafood weighs in at a mere 16 pounds per person. “That’s a big gap,” McGuire says.

Like most Americans, McGuire didn’t grow up on a seafood diet. As a child in Nebraska, “I was lucky to see a fish stick in our kitchen,” she writes. When her family moved to Texas during her teenage years, however, she discovered fish tacos—and she took to seafood like, well ... a fish to water. During her time at the Friedman School, she became enamored of the seafood dishes at the Italian restaurants in Boston’s North End, savoring such specialties as grilled octopus. Later, in Washington, she lived down the block from the sushi place favored by diplomats from the Japanese embassy. “I love sushi because you can really taste the fish in its most pure form,” she says.

But for those who aren’t quite ready for sashimi, McGuire’s suggestion is to look at favorite foods that use meat and substitute seafood. That leads to the seafood taco, or pizza with shrimp or anchovies (admittedly, she says, an acquired taste). Another good starting point is mixing seafood, particularly shellfish, with pasta.

And for those who don’t live on a South

Seas island with access to fresh fish year-round? Not a problem. “People seem to be really surprised seafood is usually just as healthful when it’s frozen, canned, pouched or jarred,” McGuire says. “If you’re going to be eating a seafood-rich diet, you should have it on hand at all times, which you can’t necessarily do with fresh seafood. That’s how I operate, even in Hawaii.”

As for affordability, “the most bang-for-your-bite choices are canned tuna and other canned fish and shellfish,” she says. White albacore tuna, particularly, is extremely nutrient-rich in those prized omega-3 fatty acids. Also, she says, look for supermarket specials, and for individually frozen fish filets, which can be thawed as you need them—these are often available in bulk at warehouse stores.

And no, McGuire does not go casting about for her own fish. “My husband grew up in Texas, and his family has a ranch with a fishing lake, so when we go there, we’ll fish,” she says. “But I certainly don’t provide my own food with any regularity.”

In addition to her master’s degree in nutrition communication from the Friedman School, McGuire earned her R.D. certification through the University of Delaware. But, she says, “I’m not a chef. My recipe-creation skills are sometimes limited.” So in addition to her original creations on the blog, she features recipes from a variety of online sources, often adapting them as she goes along. Most Mondays, she posts her “supper plan” for the week, giving readers a preview of what’s to come.

Will she dare to mention her least favorite fish? “Actually, there are very few foods I won’t eat,” she admits. “I’m a really strong believer in trying everything.” **TN**

AUGUST 30, 2009

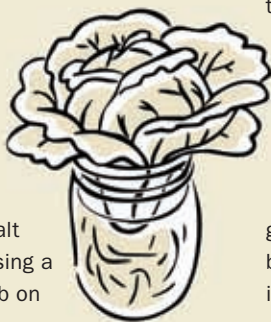
“Sauerkraut Season”

BY NICOLE FERRING, N07

From *Nicole Knows Nutrition*

<http://nicoleknowsnutrition.wordpress.com/>

Today, I stuck with a classic recipe: cabbage, salt and caraway seeds. I also experimented with using a food processor. No more slaving away over a tub on



the floor with a kraut board (big mandolin). I made 10L (2.6 gal) today in less than two hours. Still messy though. I have cabbage in my hair, and the cat is swatting it under the rugs. I will be picking up random pieces of cabbage that we’ve tracked all over the house for weeks.

Anyone can make sauerkraut. I started off years ago making it in a Home Depot bucket with a cement block weight. On a countertop in glass jars is more practical for beginners. I’ll have to wait a few weeks before I can eat today’s food science project, but thank goodness there is some leftover cabbage for a salad for dinner.

Aid can destabilize a country when it is aimed at security goals instead of humanitarian needs, says an international expert BY TAYLOR MCNEIL

TROUBLE IN AFGHANISTAN

THE WAR IN AFGHANISTAN IS IN THE NEWS ALMOST EVERY day, and it's hard to escape the images of villagers caught in the middle of the conflict. With a growing Taliban insurgency centered in the south and south-east, the violence continues to escalate.

It's a situation Andrew Wilder, F89, F96, knows all too well. A research director for the Feinstein International Center since early 2007, he managed humanitarian aid and development programs in Afghanistan and Pakistan for 10 years while working for Mercy Corps, the International Rescue Committee and Save the Children. From 2002 to 2005, he established and served as the first director of the Afghanistan Research and Evaluation Unit (AREU), Afghanistan's leading independent policy research organization.

Now he's heading a study examining how humanitarian aid is affecting efforts to stabilize the war-torn country. Funded by AREU and the governments of Australia, Norway and Sweden, the study has taken him back to Afghanistan four times over the past year to interview Afghans and internationals of all stripes:

government leaders, military personnel, tribal elders and villagers.

His initial findings might not fit easily with preconceived notions about the role of aid in countries in conflict. Wilder believes that too much aid, especially in the insecure regions of Afghanistan, is leading to more instability. Money is siphoned off by corrupt government officials, which fuels anti-government sentiment in the people who are supposed to benefit from that aid. On the other hand, regions that are relatively stable receive much less aid than unstable areas—and that's a mistake, too, Wilder says, because people feel like they are being penalized for maintaining security. Aid programs, he concludes, need to focus on humanitarian and developmental needs instead of security goals.

Wilder has brought his policy recommendations to the highest levels in Washington. His efforts have included a meeting with Richard Holbrooke, H97, the State Department's special representative for Pakistan and Afghanistan.



LEFT: At a market in Faryab province, in northern Afghanistan

ABOVE: Heading to cast votes on election day in 2004 in Faryab province

BELOW: Transportation by camel in Jowzjan province, in northern Afghanistan



“I want very much for the research findings to be heard in policy circles,” Wilder says.

Born and raised in Pakistan, Wilder came to the United States to attend college. He later received an M.A. in law and diplomacy and a Ph.D. from the Fletcher School; his doctoral thesis was on Pakistani politics. His roots in the region stretch back even further than his upbringing: his grandparents were missionary doctors in India for 40 years.

Q: Can humanitarian aid be used as a tool for stabilization and security in Afghanistan?

Security is the number-one desire of Afghans and the international community. If aid programs indeed have a significant security benefit, then I think there would be some justification for programming some of our development aid to try to achieve those benefits. But as far as I can see, there’s very little evidence that poverty, or the lack of infrastructure and health care in Afghanistan, are major causes of the conflict. All those things are important, but that’s not what’s driving the conflict.

We operate under the assumption that spending more aid money in the insecure areas improves security. But we don’t have evidence that it’s actually achieving these security objectives. That’s why I’m urging some caution, since our research is showing not only is aid not stabilizing, it can also be destabilizing.

Q: How would aid be destabilizing?

The more money we try to spend in this environment, which has very limited human resources and institutional capacity, inevitably money overflows into the pockets of corrupt officials. Our aid programs are actually fueling the corruption, which is delegitimizing the government, which is fueling instability.

Q: But can humanitarian aid play a useful role in Afghanistan?

Humanitarian aid plays a very important role in Afghanistan, but I think it’s important that humanitarian aid be provided on an impartial basis, based on needs—and the needs in Afghanistan are tremendous. I think we do have lots of evidence that aid can be effective in addressing humanitarian and development needs. But there isn’t evidence that it is effective in addressing security needs.

Q: What do Afghans view as the cause of the conflict?

I just got back from Afghanistan in July, and spent some time in one of the southern provinces, Urozgan, which is quite badly affected by the insurgency. I was interviewing Afghans on their perceptions of insecurity and of aid. It was interesting the number of people who thought that what was fueling insecurity was not the Taliban, but their own corrupt and ineffective government.

I think this is one of the real problems in Afghanistan. It’s not necessarily that the Taliban are winning, it’s that the government is losing. It’s the government that we help support and that we are closely affiliated with that is viewed as corrupt and predatory by many Afghans. In some areas, that is leading some Afghans to start reminiscing and say, “When the Taliban were in charge there were problems. But we didn’t have these warlords, and we had some form of justice. And the police then weren’t ripping us off.”

Q: What is the solution?

If we’re ever going to have any success in Afghanistan, it’s going to be due to some kind of political reconciliation. And that’s where our dilemma lies. We have a government now that should be doing the political piece, but I’m not convinced that they feel it’s in their interest to do that, because they are doing pretty well. Maintaining the



ABOVE: School girls and their friends in Badakhshan province, in northeast Afghanistan
LEFT: Andrew Wilder

status quo is, I think, in the interest of a lot of the key people we're relying on to push the political process forward.

Q: In other words, if you're a politician in Kabul and all this money is coming in—and some falls into your pocket—what's the incentive to change?

This is one reason why I'm in the less-is-more camp. Some of our aid—it also includes a lot of security contracting and aid contracting—is needed, but we should be sure that what we do can be monitored and is effective and accountable and is not fueling corruption.

Q: How does aid money work against our interests?

For example, we're now spending hundreds of millions of dollars on road building. Roads are important. But there is mounting evidence that to build a road in an insecure area, you have to give money to the Taliban not to shoot your workers. So our aid money is actually ending up in Taliban coffers.

These deals are being made, and that's where I would argue that we need to limit the amount of aid that goes to Afghanistan and focus more on the critical aspects: better governance and fighting corruption. We're not going to get 100 percent here. But I think we need to give the Afghan public some perception that the government is moving in the right direction rather than continuing to move in the wrong direction.

Q: Does the widespread poverty in Afghanistan fuel the conflict?

If anything, it's the attempts to develop and modernize that fuel

insecurity. I'm not saying we shouldn't develop and modernize, but we shouldn't assume that it's stabilizing.

You could argue that in Afghanistan being extremely poor is a stable state, and being developed is a stable state. But the process in between, as new social groups emerge and there are perceived winners and losers in the economic development process, that's not stable.

I'm very curious why there is this very strong perception in counterinsurgency circles that it's the poor people who are fueling radicalization. If you look at the 1970s in Afghanistan, it was the rapid social change with the emergence of Kabul University that led to the emergence of extreme Islamic groups and the communist parties, which basically fueled a lot of the last three decades of conflict. And that was due to modernization, not poverty.

Q: How can we measure success—or failure—in Afghanistan?

Having spent almost all my professional life working on Afghanistan, I don't think it's a country we should walk away from. But I'm skeptical that our current definitions of success are going to be achievable. I think we need to be more realistic in terms of what is achievable in the Afghan context. Our goals should probably be a lot less ambitious.

What we end up achieving will probably not be viewed as "a success" by many people—Afghan or international. But I'm still hopeful that if we try to focus on doing a few things well, and recognize that there are no quick-fix solutions, we can avoid a repeat of the disastrous consequences of our prematurely walking away from Afghanistan nearly two decades ago. **TN**

Taylor McNeil, the news editor in Tufts' Office of Publications, can be reached at taylor.mcneil@tufts.edu.



scientist for the Royal Air Force during World War II. Throughout his diverse career working on nuclear reactors, astrophysics and biology, Dyson was attracted to any problem "where elegant mathematics could be usefully applied." He is the author of nine books about science for the lay audience and a frequent contributor to the *New York Review of Books*.

CROPS OF THE FUTURE

After calling for the end of the nuclear age, Dyson sketched his optimistic vision for the approaching age of biotechnology, comparing the evolution of that field to that of computer science.

"Once a new generation of children grows up as comfortable with open-source biology as our children are with computers, the magic of genes will be available to anyone with the skill and imagination to use it," he said.

One result Dyson envisions: new breeds of plants with silicon-based solar cells, capable of converting sunlight into energy with startling efficiency. Such organisms could increase the world's food supply without using up more land or water. Of course, these crops of the future would create a whole new set of questions, Dyson acknowledged. "Who will be allowed to grow them? Will they invade and permanently change the natural ecology? What to do with the silicon trash these plants would leave behind? But the 21st century will bring powerful new tools with which to solve these problems," he said.

Dyson did not escape the evening without a question from the audience about his controversial views regarding global warming. While he does not dispute the scientific consensus that humanity's fossil fuel use contributes to climate change, Dyson said he believes the danger of global warming has been "grossly exaggerated . . . and distracts us from other things which are more serious and that we can do something about right now," citing homelessness, a lack of access to health care and social inequality as higher priorities.

Jacqueline Mitchell, a senior health sciences writer in Tufts' Office of Publications, can be reached at jacqueline.mitchell@tufts.edu.

Weapons and Hope

Freeman Dyson calls for nuclear disarmament and extols the promise of biotechnology by Jacqueline Mitchell

WHILE MUCH OF THE WORLD worries about nuclear bombs in the hands of rogue states, Freeman Dyson sees an equally large threat: the excessive reliance on those weapons by the United States.

"Nuclear weapons are useless for preventing wars or terrorist attacks, and are even more useless for winning wars," said Dyson, a physicist and noted intellectual who delivered the 11th Richard E. Snyder President's Lecture at Tufts on October 1. He called for nuclear disarmament while also heralding the "domestication" of biotechnology in his talk, "Nukes and Genomes: Twin Genies Out of the Bottle."

Dyson argued that it was not the August 1945 bombings of Hiroshima and Nagasaki but the Soviet invasion of Manchuria that convinced the Japanese to surrender at the end of World War II. "Like everyone else in England and the United States in 1945, I shared the belief that the bombs ended the war," he said. "It will not be easy

to persuade the American public that our brave soldiers and scientists did not win the war by themselves."

He added that the United States' stockpile of weapons is no deterrent against attacks by the so-called rogue states or terrorist groups that wish us harm. "The basic problem is that we have good military targets [for them to hit], while they have few," Dyson said. "Or we can kill large numbers of people and make sure the survivors view us with enduring hatred."

Established in 2004 by Richard E. Snyder, A55, the lecture series is intended to "enrich intellectual life at Tufts by bringing to our campus prominent thinkers and scholars, shaded in the direction of people who succeeded through their willingness to challenge conventional wisdom," noted President Lawrence S. Bacow in his introduction.

Dyson, 85, fits the bill. Professor emeritus of physics at the Institute for Advanced Study at Princeton University, Dyson was born in England and worked as a civilian

Roads to Wellness

Friedman School Symposium shows how subtle factors affect our health by **Jacqueline Mitchell**

AFTER WORLD WAR II, DETROIT WAS THE FOURTH-LARGEST CITY IN the United States, home to a vibrant and highly educated population. A black-and-white street map of the city from 1949 shows a tight, robust grid. But in 1950, Detroit officials, intending to bring people and commerce into the city, began building highways. “Detroit started to fall apart,” said transportation engineer Ian Lockwood, displaying a map of present-day Detroit that looks like an abandoned spider web. “If I were a doctor for cities, I would see the cancerous growth of super blocks, the severing of the connective tissues of the street network by the highways,” said Lockwood. “I could tell this was a very sick city without having ever visited it.”

Lockwood was one of 18 of national and international experts who gave presentations in September at the fourth annual Friedman School Symposium (www.friedmansymposium.com), a meeting to exchange ideas about nutrition policy and the food industry. He was one of several speakers who talked about how our environment contributes to our health.

IF YOU BUILD IT, THEY WILL WALK

Car-centric transportation planning, Lockwood said, is bad for the economy, bad for the environment and bad for our health. “Pushing the highway agenda,” as Lockwood calls it, transformed much of the United States into “carscapes,” from walkable cities to suburban towns where people never meet their neighbors.

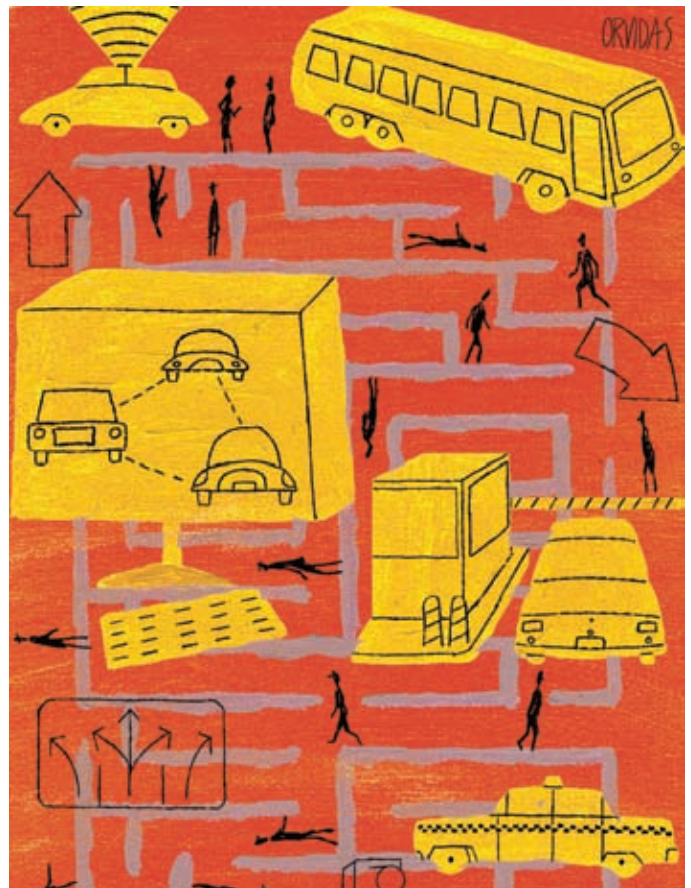
Putting pedestrians back at the center of urban planning can revitalize cities’ economies, preserve the environment, foster community and benefit peoples’ physical and mental wellbeing, Lockwood said. People can walk to the corner store, rather than hopping in the car to drive to a supermarket. But Lockwood’s ideas aren’t entirely anti-automobile. In fact, tight street networks accommodate more traffic than superhighway systems do, said Lockwood. If an accident ties up traffic at one intersection, drivers have more alternate routes available to them.

“Our profession got it wrong when it came to highways,” Lockwood said. “But we’re no longer obsessing about how to move more cars faster over longer distances. Now we’re looking at community

outcomes like health, walkability and connectedness.”

Take Chattanooga, Tenn. City officials hired Lockwood’s firm, Glatting Jackson, to revitalize its downtown in 2000. They first took down the highway that cut people off from the city’s waterfront, replacing it with a two-lane city street surrounded by parks and trails along the shores of the Tennessee River. “Today there are festivals where the highway used

continued on page 26



continued from page 25

to be; the city is coming back to life; more investment and new housing is coming in," said Lockwood.

A KILLER INGREDIENT

What's the "single deadliest ingredient in our food supply?" According to Michael F. Jacobson, executive director and co-founder of the Center for Science in the Public Interest (CSPI), a nonprofit consumer advocacy group, salt is "the forgotten killer, worse than any other food additives, pesticides and trans fats combined."

Dietary sodium is a known contributor to hypertension, cardiovascular disease, heart attack and stroke. A report from the National Heart, Lung and Blood Institute estimates a 50 percent reduction in salt consumption would save 150,000 lives per year. The Rand Corporation, a nonprofit think tank, estimates that a 30 percent reduction could save \$18 million in direct medical costs.

The USDA's 2005 Dietary Guidelines recommend consuming less than 2,300 mg—or about one teaspoon—of salt per day. Yet most Americans take in about 3,400 mg.

The salt shaker on the dinner table isn't really the problem, said Jacobson. It's the sodium the food industry adds to processed foods. Salt boosts flavors, but some versions of salt—like MSG and nitrites—serve as



Americans' sodium intake has remained steady since 1990. "The voluntary approach hasn't worked. We may need a variety of approaches and ways of dealing with the salt problem," Jacobson said.

Congress, for example, could impose limits on the total sodium used by the food industry, Jacobson suggested, mimicking the cap-and-trade programs proposed to reduce greenhouse gases. "Let the companies fight

matter how you measure it," said Elizabeth Goodman, G83, a professor of pediatrics at Tufts University School of Medicine.

Low socioeconomic status also increases the risk of obesity, said Goodman, who directs the child and adolescent obesity program at the Floating Hospital for Children at Tufts Medical Center. Given that children are the group most likely to be poor in this country and that 70 percent of American teens live in households with no college-educated adults, today's adolescents are especially susceptible to a social structure that "sets us up" for an obesity epidemic. In fact, researchers can attribute as much as 40 percent of adolescent obesity to the effects of

socioeconomic status, Goodman said.

Long-term studies have shown that the influence of a family's socioeconomic status persists well into adulthood. Children begin to internalize their class identities during adolescence, placing themselves on the social hierarchy ladder. It's no surprise to Goodman that black girls—who, as a group, have lower self-perceived social standing than black boys or white boys and girls—have the highest rate of obesity.

But according to Goodman, race may not be the most useful lens through which to view the obesity epidemic. "If you adjust for race, the father's education matters more," she said. "We can't change people's race, but we could create social policy that helps everyone get into that college-educated group." That's why "education policy in my view is health policy," she said.

How does socioeconomic status contribute to obesity? It's a complicated web of cause and effects, Goodman acknowledges, but researchers have some hypotheses. For one thing, the stress hormones insulin and hydrocortisone are both known to play a role in metabolism and weight regulation. Can the stress of being poor in America make people fat? Goodman, for one, thinks it can. "This is the biology of social injustice," she said.

A report from the National Heart, Lung and Blood Institute estimates a 50 percent reduction in salt consumption would save 150,000 lives per year.

preservatives or anti-microbials. Some salts are leavening agents, like baking soda, while others maintain the texture or consistency of foods. "We clearly need research on salt replacements," said Jacobson. "There's not going to be any one ingredient; we may need different substances for different uses."

In 1984, the CSPI sued the FDA to force it to enact federal sodium regulations. The court tossed the case out, instead asking the FDA to get industry to voluntarily reduce sodium levels in food. Yet

it out," he said. But whichever approach health officials take, "the feds need to get involved and back it with federal muscle," Jacobson said. "We could save an awful lot of lives and an awful lot of money."

A SOCIAL STRUCTURE FOR OBESITY

Wealthy, educated people have a lower risk of disease. Poorer, less-educated people have an elevated risk of disease. "It's an inverse gradient that holds true almost no

SPLICE OF LIFE

Putting genetically engineered agriculture to the test

FOR AS LONG AS SCIENTISTS HAVE KNOWN THAT A LACK OF vitamin A can lead to blindness, they have searched for an inexpensive food that could bring this essential vitamin to the developing world. After much trial and error, they found that taking rice and adding two genes—one from corn and one from a bacterium—results in a grain that is rich in beta-carotene, which the body can convert to vitamin A.

Although it is still a few years away from its first harvest as a commercial product, golden rice is probably the best-known example of a genetically modified organism (GMO), and it's no accident. Ten years ago, when public sentiment against mysterious "Frankenfoods" was peaking, manufacturers with an investment in their own GMOs began promoting the heart-warming story of a rice crop that could prevent blindness in millions of children.

"They were really using this product for their own purposes," said Gary Toenniessen, Ph.D., managing director at the Rockefeller Foundation, which funded the research. "They hadn't put a penny into the development of it, and still they were making significant claims associated with it."

When it comes to GMOs, emotions run high. But what does the science say? Four experts, representing researchers and regulators, a foundation and a watchdog group, came together to discuss just that at the 11th Annual Gershoff Symposium, titled "Genetically Modified Organisms: ImaGENEing the Future of Food."

In the United States, a bigger problem is our poor intake of omega-3 fatty acids, which have been associated with health benefits. Jing Kang, M.D., Ph.D., a professor of medicine at Harvard University, pointed out that some plants and animals carry a gene for an enzyme that can convert omega-6 fatty acids to omega-3s. He devised a way to insert such a gene from an earthworm into pig cells and then move the cell nuclei into fertilized eggs to create pig embryos, which were then implanted in a sow. The ratio of omega-6 to omega-3 in the resulting piglets was five times lower than in ordinary piglets. He is looking to replicate the experiments with other livestock.

"If you don't like to eat fish, and you don't want to eat supplements," Kang said, looking to the future, "you can still enjoy your

hamburger and hot dog and get omega 3."

Gregory Jaffe, J.D., the director of the Project on Biotechnology for the nonprofit consumer organization Center for Science in the Public Interest (CSPI), is more concerned with getting the regulatory system ready for what's coming down the pipeline than with the safety of the current GMOs on the market, which the CSPI has investigated. "We did take a position that the current crops in the U.S. appeared safe to eat and the environmental risks are manageable," Jaffe said. "We supported those products and we did that based on the science that was out there."

But the current regulatory system, which doles out partial responsibility to the FDA, the USDA and the Environmental Protection Agency, could use a closer look, he said.

"The FDA, by its own admission in its documents, says its

reviews are not comprehensive. So in the end, the public is relying upon Monsanto or Dupont or Syngenta for the safety of their food, not FDA."

"Most of the foods we eat don't have an FDA seal of approval before we eat them," he admitted. "But I do think these foods may be different and may need that extra confidence [to be accepted by] the public."

Chris Wozniak, Ph.D., a biotechnology special assistant in the Office of Pesticide Programs at the EPA, said it is easy to find myths and misinformation about GMO production. They range from claims that the genetically engineered crops lead to more pesticide use to accusations that livestock, birds and people have been sickened by them.

"Insecticide use has been reduced approximately 50 percent since the introduction of Bt cotton," a kind of pest-resistant cotton, Wozniak said. He

also pointed to a study that found genetically modified crops have reduced greenhouse gas emissions, equivalent to removing 6.56 million cars from the road for a year. If a farmer does not have to apply synthetic pesticides, Wozniak explained, he "doesn't have to go out and run the tractors as often."

As for rumors that GMO crops have sickened people or animals, he has seen "simply no evidence" of morbidity or mortality.

"Where is the data?" he said. "I see these claims, but show me some data."



Dean Emeritus Stanley N. Gershoff presented the second annual Stanley N. Gershoff, Simon J. Simonian, Arpi A. Simonian Prize for Research Excellence in Nutrition Science and Policy to graduate student Natalie Valpiani.



Left: Christina Luongo Kamins, J01, N09, receives her Master of Science diploma from Dean Eileen Kennedy. Lower left: Danielle Barmash, N09, and Cassandra Adu-Asare, N09, applaud their fellow graduates. Below: Jessica Jones-Hughes, N09, gives the class address.



School and is a member of the school's Board of Overseers. "If something does not make sense—and it matters to you—don't let go of it. Never discount your insights. They are precious. Use feedback and criticism from others to hone your ideas so that they penetrate. Then find an audience and be heard in a loud voice."

Jessica Jones-Hughes, who completed the master of science and combined dietetic internship, said in her class address that she was struck by the "creativity, community and compassion" that pervade the Friedman School. She said she discovered the "irreplaceable value of a supportive community" two years ago, when her apartment near campus burned down.

"Within days, my email box was overflowing with responses of donations that Tufts faculty, staff and students were offering. Everyone had something they wanted to give," Jones-Hughes said. "It was beautifully overwhelming."

Laura Catherine Ficker received the Rebecca Roubenoff Award for Excellence in Clinical Nutrition and Dietetics, which is given to a Frances Stern dietetic intern whose "academic excellence, clinical expertise and promise in the field of nutrition is of the highest caliber." Holly Sedutto received the inaugural Joan M. Bergstrom Student Award for Excellence in Global Nutrition, named for the former chair of the Board of Overseers who received her undergraduate degree in education from Tufts in 1962 and is a professor at Wheelock College.

Earlier in the day, the university bestowed honorary degrees on Massachusetts Gov. Deval L. Patrick, who gave the all-university commencement address, as well as on David W. Burke, A57, an accomplished figure in public service and television news; Leslie H. Gelb, A59, a Pulitzer Prize-winning journalist and foreign affairs expert; Sister Margaret A. Leonard, executive director of Project Hope; Patricia Q. Stonesifer, former chief executive of the Bill & Melinda Gates Foundation; C. Megan Urry, J77, the Israel Munson Professor of Physics and Astronomy at Yale University; and Robert A. Weinberg, founding member of the Whitehead Institute for Biomedical Research.

Commencement 2009

Graduates urged to shatter convention

THE FRIEDMAN SCHOOL AWARDED 58 master's degrees and 16 doctoral degrees at its 28th commencement ceremony, held in May on Tufts' Medford/Somerville campus.

In his address to the graduates, Thomas E. Hughes, N87, A10P, chief executive of the pharmaceutical company Zafgen Inc., urged the class to challenge conventional wisdom. Perhaps aware of the butterfly-filled stomachs in the audience, he used the history of ulcers as an example. For many years, physicians believed they were caused by stress, emotional instability and poor diet. Then, in the late 1970s, the researchers

Robin Warren and Barry Marshall theorized that a bacterium called *Helicobacter pylori* could be to blame. When they presented their findings, "they were literally laughed off the stage," Hughes said. They turned out to be right, of course, and their research led to antibiotics as the new standard of care for ulcers.

"Now that they are Nobel laureates, people don't laugh at Warren and Marshall anymore," Hughes said.

"Convention often gets shattered by breakthrough thinking. We should not be so smug in our knowledge," said Hughes, who received his doctorate from the Friedman

SCENES FROM REUNION 2009

Reunion weekend began with a volunteer service project at the Greater Boston Food Bank, where alumni, students and staff, along with the other volunteers that day, sorted more than 15,000 pounds of food. That night, recent graduates (2004–2008) met up for a reception at Vlora Restaurant. On Sunday, a student poster session and brunch were followed by the presentation of the 2009 Alumni Association Awards. The event was topped off by a keynote address by Lorelei DiSogra, vice president of nutrition and health for the United Fresh Produce Association, a career panel and the Gershoff Symposium.



Left: Aviva Must, Ph.D., N87, N92, J01P, A03P, recipient of the Leadership Award; Dean Eileen Kennedy, F08P; and Marguerite Evans Klein, N84, who received the Expertise/Innovation Award. Above: Friedman School students Lena Nguyen and Lindsay Peterson.



Left: Julia McDonald, N07, M07, and Abby Usen, N03. Below: Katya Tsaion, N99; her husband, Doug Bates; and her daughter, Eugenie.



Clockwise from top left: Rachel Meltzer, N04; Izzy Mendoza, N05, M05; and Laurie Barenblat, J98, N04. Sonya Elder, N05, N09, and doctoral student Michael Corcoran, N05. Doctoral student Jonathan Mein, N07, and Andrew Shao, N00.

G75 Helene Fuchs, a graduate of the Frances Stern Nutrition Center, is the founder/owner of HF Associates, where she designs and conducts qualitative and applied research, market assessments, strategic analysis and planning, program and product development and project management primarily for the health-care industry. She also blogs about "The Ins and Outs of Healthcare" at www.helenefuchsonline.blogspot.com.

N82 Mary Farkas has launched the website www.eldermuse.net, which she describes as "a guide, an aid, to help women on the threshold of their elder years find internal peace and joy, as well as physical vitality."

N84 Marguerite Evans Klein was the recipient of the 2009 Friedman School Alumni Association Award for Expertise and Innovation.

N86 Faculty Members Patrick Webb and Bea Rogers ran into a number of Friedman School graduates at the International Micronutrient Forum in Beijing, China, including: **Juliet Aphane**, who works for the Food and Agriculture Organization in Rome; **Akoto Osei, N04**, who works with Helen Keller International in Cambodia; **Fanfan Han, N05**, with the Chinese CDC; **Tom Schaezel, N06**, director of the Infant and Young Child Nutrition Project, based in Washington D.C.; and **Laura Rowe, N07, MPH07**, associate director of Project Healthy Children, a private voluntary organization based in Newton, Mass.

Nina Schlossman, J75, is the president of Global Food &

Nutrition Inc., a woman-owned business based in Washington, D.C., which was chosen as the subcontractor for the Friedman School's new two-year USAID-funded Food Aid Quality (FAQ) Review Project. Schlossman, also an adjunct assistant professor at the Friedman School, is working with FAQ co-directors Patrick Webb and Beatrice Rogers and the other faculty involved in the project. "We are reviewing the nutrition and technical quality of fortified blended foods and how they meet the needs of targeted food-aid recipients in the context of other food-aid commodities and their local food baskets,"

Schlossman says. "The FAQ will produce four technical papers and recommendations on how to improve the current mix to meet the future needs of the food aid target groups," she notes. "We urge you to consult the Friedman School website and participate in online consultations through a special FAQ Wiki Page."

N87 Led by chief executive **Tom Hughes**, Zafgen Inc., a pharmaceutical company dedicated to developing novel obesity therapeutics, was named one of the "Fierce 15" leading biotech companies of 2009 by FierceBiotech. Hughes was also featured in a February

2009 episode of *Chronicle*, a Boston television news magazine, and was the keynote speaker at the Friedman School's 2009 Commencement.

Aviva Must, N92, was the recipient of the 2009 Friedman Alumni Association Award for Leadership.

N94 Adjunct Assistant Professor **Hugh Joseph** gave the Division of Nutrition Science Field Seminar at Cornell University; his topic was "Perspectives on Affordability within Sustainable Food Systems." He also conducted a two-hour workshop for the Cornell Cooperative Extension

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www.linkedin.com. You can post and review nutrition-related job

We want to hear from you!

Have a new job? Is your family growing? Are you getting together with classmates? Keep fellow graduates up to date by sharing your news at alumni.nutrition.tufts.edu.

of Tompkins County and Cornell University on "How Food Secure Are Our Tompkins County Communities? Where Should We Focus Our Food Justice Efforts?"

N97 Heather Case Rafferty welcomed a son, Luke, in March. He joins big brother, Jack, age 2.

N99 Melissa Bernstein and Ann Schmidt Luggen have published *Nutrition for the Older Adult* (Jones & Bartlett Publishers), a comprehensive introduction to nutrition and health promotion for older adults. In 2006, Bernstein joined the nutrition department faculty at Rosalind Franklin University of Medicine and Science in Chicago as an assistant professor. She is a licensed dietitian in the state of Ohio.

Ka He, an associate professor of nutrition and epidemiology in the Gillings School of Global Public Health at the University of North Carolina at Chapel Hill, won the Best Faculty Presentation in the Sciences Award at the fifth annual University Research Day Symposium at the Gillings School.

Kate Houston now works in federal affairs for Cargill Inc. in Washington, D.C.

Claire Kozower, see N08.

N00 Kali Erickson, MPH00, writes: "I moved to Washington, D.C., from Mozambique almost a year ago with my husband Jaime and daughter Kia. I would be happy to hear from old Tufts friends near and far: kalierickson@yahoo.com."

N01 Katherine See is the executive chef at Todd English's Kingfish Hall in Boston. She also oversees all the seafood restaurants in

Todd English Enterprises and travels with English to large events, where she serves as his sous-chef.

N02 A study by Kendrin Sonneville published in the *International Journal of Obesity* was quoted in a *Time* magazine article about exercise and weight loss. She currently works for Children's Hospital and is pursuing her Ph.D. at the Harvard School of Public Health.

N04 Katie Cavuto Boyle made it to the fifth episode as a contestant on *The Next Food Network Star*. For more on her on-air food adventures, turn to page 2. You can also watch recaps of Katie's healthy cooking at www.foodnetwork.com.

Sasha Chanoff, F04, was featured in a June 2009 *Boston Globe* article about his NGO, Mapendo International, which assists refugees who have been overlooked by existing aid programs. Rose Mapendo, the organization's namesake, was honored in Washington by the United Nations refugee agency's U.S. office as the Humanitarian of the Year, and feted by an audience that included Secretary of State Hillary Rodham Clinton and refugee activist Angelina Jolie.

Mary-Jon Ludy and her husband David celebrated the birth of their baby boy, Adam Ludy Proulx, on September 9. He weighed 6 lbs., 8 oz.

Akoto Osei, see N86.

N05 Charlotte Block has landed in Kabul in a new position with Mercy Corps. She writes: "I will be working on a program called IDEA-NEW, where we are sub to Development Alternatives Inc. under a very large USAID grant.

We will be working on agriculture livelihoods and livestock projects, including infrastructure, horticulture, animal health and poultry. Our portion of the program is located in some of the northeastern provinces in Afghanistan, and I will be traveling up to Badakhshan to continue wrapping our heads around our activities and meet staff. If any Friedman folks are going to find themselves in Kabul (or if you know of other Friedman people here), let me know."

Xiang Gao, N06, an instructor at Harvard Medical School, received his first NIH grant, titled "Prospective Study of Restless Legs Syndrome." The grant, from the National Institute of Neurological Disease and Stroke, will allow him to examine risk factors and clinical consequences of restless legs syndrome in more than 100,000 U.S. men and women. The American Academy of Neurology also issued press releases for two of his studies that appeared in the journal *Neurology*: "Family History of Melanoma and Parkinson's Disease Risk" and "Obesity and Restless Legs Syndrome in Men and Women."

Fanfan Han, see N86.

Kelly Horton has been chosen as a Health and Aging Policy Fellow in Washington, D.C. The fellows program provides opportunities for professionals in health and aging to obtain the experience and skills necessary to make a positive contribution to the development and implementation of health policies that affect older Americans.

Zeina Maalouf, a doctoral student in the Program in International and Community Nutrition at UC Davis, received one of five Clinical Emerging Leader Awards from the Medical Nutrition Council.

N06 Jeanene Fogli Cawley and her husband, Brian, welcomed their second child, Brian Finnian ("Finn"), on May 12. Big brother is Sean Maxwell ("Max").

Stephanie Clarke and **Willow Jarosh**, owners of C&J Nutrition in New York City, are featured in the September 2009 issue of *Self Magazine* for the 2009 Healthy Food Awards. Willow and Stephanie developed the judging criteria and participated in evaluating food for the awards. You can follow C&J on their new twitter feed at <http://twitter.com/cjn nutrition>.

Tom Schaetzel, see N86.

Meghan Slining, currently in the Ph.D. program at the University of North Carolina at Chapel Hill, received the Wrigley Research Institute Predoctoral Fellowship.

N07 Chris Hillbruner and **Meaghan Murphy** were married on July 25 in Amherst, Mass., joining the small but growing society of Friedman School couples. Other alumni in attendance were **Signe Anderson, N07; Elizabeth Bontrager, N08; Christine McDonald, N07; and Sarah Sandison, N08, F08**. Murphy writes: "It was a great day. We were lucky to get one of the few non-rainy Saturdays of the summer for our outdoor celebration!" The couple lives and works in Washington, D.C.

Laura Rowe, MPH07, see N86.

Erika Wong is a registered dietitian working at the California Health & Longevity Institute in the Four Seasons Hotel in Westlake Village, Calif. In addition to counseling adults and children on nutrition, she teaches healthy cooking classes, where guests don aprons and learn to prepare

healthy dishes following a plant-based diet.

N08 Sarah Elizabeth Belisle won the Nutritional Immunology Research Interest Section Poster Competition for her presentation titled “SNPs at IL-2 and IL-10 Genes Are Associated with Respiratory Infection in the

Elderly and May Modulate the Effect of Vitamin E on Lower Respiratory Infections in Elderly Women.” Her co-authors were Davidson Hamer, Lynette Leka, Jerry Dallal, Javier Delgado-Lista, Basil Fine, Paul Jacques, Jose Ordovas and Simin Meydani.

Jericho Bicknell is working as the education and outreach

coordinator at Waltham Fields Community Farm. Fellow Friedman alum **Claire Kozower, N99**, is executive director of the community farm.

Melissa Cunningham is doing her dietetic internship at Brigham and Women’s Hospital in Boston.

Sarah Sandison, F08, see N07.

N09 Courtney Anderson is working in Cambodia for World Vision.

Jamie Fierstein is currently in Ecuador on a Fulbright Scholarship.

Jessica Jones-Hughes has accepted a job with Equal Exchange in Boston.

Josiemer Mattei received the best graduate student

Better School, Better World

Leah Horowitz, N06, fought to end hunger, poverty

WHEN SHE CAME TO THE FRIEDMAN SCHOOL, LEAH Horowitz, N06, was determined to learn about every aspect of the food supply, from seed to plate. But she soon found there were gaps in the classes being offered. So she recruited a number of other students and led them in drawing up a framework that traced the entire food system. They shared the framework with faculty who were already pondering an overhaul of the curriculum. As a result, new courses, including one on international trade, were added, and existing courses shifted their emphasis.

“It would be much easier to complain about how things don’t meet your expectations,” said her friend Aimee Witteman, N06. But that, she said, would never have occurred to Horowitz, whose attitude was simply, “We need to do this.”

Horowitz, who was working in Ghana as a program coordinator for the International Food Policy Research Institute, died in a car crash on May 23. She was 29. She is remembered not only for making the Friedman School a better place to learn, but for constantly searching for ways to better herself and the world.

“She really believed—and was dedicated to the belief—that you could make a difference,” said her father, David Horowitz.

Assistant Professor Jennifer Coates, J94, N00, N06, who worked with Horowitz on the curriculum review, described her as “smart as a whip, energetic and engaged.”

“The process that she helped to facilitate was one of the more gratifying experiences that I’ve participated in at Friedman,” said Coates, who

still uses the food system framework in her Food Security, Nutrition and Development course. “I feel proud of the teamwork that she helped foster and the results it produced. She was a star.”

Horowitz also worked to bring students together outside the classroom. Witteman, a graduate of the Agriculture, Food and Environment Program, remembers the day Horowitz, who studied in the Food Policy and Applied Nutrition Program, decided that students in the different academic programs should collaborate more. “She said, ‘We should start an extracurricular club, some space where we can come together and do service projects and have more discussions.’” The result was a new student group, called FOOD, which continued after they graduated.

“She would shy away from being called a leader, but that’s what she was,” Witteman said. “In an unassuming but firm way she was able to spur students forward.”

Horowitz grew up in Elkins Park, just north of Philadelphia. After graduating from Cheltenham High School as her class valedictorian, Horowitz studied geography at Dartmouth College, graduating with the highest GPA in her major. She got involved with the sustainability movement, spending many hours working on Dartmouth’s organic farm and taking courses in Zimbabwe through the college’s Environmental Studies Program.

But one of her most formative experiences, her family said, was as an AmeriCorps VISTA volunteer in Tillamook, Ore., where she worked with the Oregon Food Bank and taught sustainable farming to troubled youths.

Her work in Oregon led her to pursue a master’s degree at the Friedman School. When Julia McDonald, N07, MPH07, wrote to her future classmates that she needed a place to stay in Boston until her lease began, Horowitz



Leah Horowitz, N06

poster award at the American Society of Nutrition's Nutritional Epidemiology Research Interest Section for "Apolipoprotein A5 Polymorphisms Interact with Dietary Fat Intake in Association with Markers of Metabolic Syndrome in the Boston Puerto Rican Health Study." The co-authors were Jose Ordoñas, Serkalem Demissie and Katherine Tucker.

Jessica Ilyse Smith reported on the lack of access to fresh and affordable fruits and vegetables in urban centers for the *Living on Earth* radio program. Residents in these so-called "food deserts" rely on neighborhood corner stores and fast-food chains as their main sources of food.

was the first to offer her apartment.

"That was generally my impression of Leah: whatever she could do to help someone or make people's lives easier, she did it," McDonald said.

She said Horowitz took her work seriously, but kept things in perspective, and would break up an intense study session by proclaiming, "I want a cookie," or putting on hip-hop music and starting a dance party. She considered studying urban planning or going to business school, searching for the path that would help her make the biggest impact on issues of social justice, poverty and access to food.

"She was always looking for what she could be doing to make herself smarter, to give back to the world, to be doing more," McDonald said.

After graduation, she took a job in Washington, D.C., as a staffer for U.S. Rep. John Olver of Massachusetts. But after much thought, she left the promising job to work with the International Food Policy Research Institute (IFPRI). Her friend Sally Abbott, J01, N06, said it was just one example of how honest she was, both with others and with herself. "She was willing to question things within her own work and life and analyze what she was doing," she said.

She began at IFPRI as a research analyst, contributing to and writing influential articles on agriculture and gender issues in developing countries. But she was eager to return to Africa, and requested a transfer to IFPRI's Ghana office. In March, she was promoted to program coordinator, overseeing the organization's research programs in the country.

On May 23, Horowitz and three friends left the capital of Accra headed for a beach resort. Halfway into the five-hour drive, they collided with a minibus. Horowitz and two bus passengers were killed.

More than 500 mourners attended her funeral in Philadelphia on June 4. Another 150 mourners attended a service held in Ghana.

"It was very touching that people from all phases of her life all said the same thing about her: that she was inspirational," said her mother, Sandee Mandel.

A CALL TO IMPROVE CHILDREN'S HEALTH

NUTRITION AND POLICY EXPERTS DELVED INTO THE ISSUE OF children's health at a forum in Washington, D.C., that was sponsored by the Friedman School and the W.K. Kellogg Foundation. Dean Eileen Kennedy, D.Sc., told a capacity crowd at the National Press Club that when it comes to strategies for preventing obesity, hunger and malnutrition in young people, there needs to be a "balance between the basic, clinical research and more applied, translational research"

"We really have a responsibility to use what we know at any point of time for action to improve nutrition," she said. "The evolving scientific literature ... strongly suggests that there are proven interventions that are ready to be implemented or scaled up."

Professor Patrick Webb, Ph.D., pointed to successful practices that have improved children's health, from the reduction of severe undernutrition in Burkina Faso to increased food security in Brazil.

"There are far fewer people dying in famine and conflicts today than there were just 10 to 15 years ago," Webb said. "What we need to do is take those lessons and start applying them in a much bigger scale outside of major disasters."

He added: "There's progress on all fronts. We just have to capitalize on it, learn from it and spread it."

Among the proven strategies is the Shape Up Somerville program, led by Christina Economos, Ph.D., N96, holder of the New Balance Chair in Childhood Nutrition, whose community-encompassing approach to obesity prevention helped children in Somerville, Mass., gain less weight than their counterparts in other cities. Another panelist, Toni Liquori, Ed.D., has helped large school districts serve more locally grown, sustainably produced and healthful meals through a school meal reform initiative called School Food FOCUS. "A year into it we've got the reach of about four million children participating in more than 20 school districts," she said.

As for timing, Linda Jo Doctor, program director at W.K. Kellogg Foundation, said she is seeing a lot of ingenuity in schools and communities across the country with a strong commitment to prevention and to improving school and community food environments.

"In northwest Iowa, youth are organizing across 18 school districts and demanding more healthful food options," she said. "In Chicago, parents are creating wellness teams, and teachers are now lining up in the school cafeteria to get tasty food, meals that are now freshly prepared in the school," she noted. "There are many innovations out there."

Homegrown Solution

Overseer donates \$1 million to help students address child hunger in the U.S. by Mark Sullivan

“**P**OOOR NUTRITION ROBS CHILDREN of an even chance to grow, learn and be happy,” says Ellen Block, J66, whose work as chair of the Hasbro Children’s Foundation led her to join the fight against child hunger in the United States. “Good nutrition is very important to child development,” she says. “If you’re hungry, you don’t focus; you’re tired; you’re not receptive to learning. If children are not fed, they are more prone to disease; they’re not strong and healthy. They’re likely to be sick more often.”

Thus motivated—and in direct support of the mission of the Gerald J. and Dorothy R. Friedman School of Nutrition Science and Policy—Block has made a \$1 million gift to establish two term scholarships for the school’s master’s degree students. “I hope the applied research that results from my gift will help change the landscape in poor rural and inner-city areas of this country, so people in those areas will better be able to support themselves,” said Block, who chairs the school’s Board of Overseers.

Many children still go hungry amid the prosperity of the United States, Block observed. “Americans are incredibly generous when it comes to opening their hearts and pocketbooks to those suffering overseas. Sometimes we can overlook the really hungry families and children in this land.”



Ellen Block

Friedman School students are uniquely suited to address these challenges we face, she said. “There is no limit to what Friedman students can accomplish if we give them the tools,” she said. “Our students, be they young or mid-career, feel they have a chance to change their community. They are like the people who answered the call to arms under [President] Kennedy to join the Peace Corps. They say, ‘I can make a difference.’ And they are making a difference, whether in the Sudan, or in their local neighborhoods.”

Eileen Kennedy, dean of the Friedman School, said: “This gift is a wonderful testament to Ellie Block’s commitment to the Friedman School and to improving our nation’s health and nutrition. Student financial aid is the school’s top priority in the Beyond Boundaries campaign, and her thoughtfulness will provide students the opportunity to pursue graduate studies at the only independent school of nutrition in North America.”

DEAN MATCHES GRADUATING CLASS GIFT

Akin to traditions at many undergraduate institutions and across Tufts, members of the 2009 graduating class at the Friedman School organized the first class gift last spring. The class gift chairs, Marion Min, Stephanie Linakis, Caitlin Westfall and Allie Quady, realized the importance of motivating their classmates to give back to the school in support of student financial aid. More than 90 percent of Friedman School students receive some type of financial aid, and it remains the school’s greatest annual-giving need.

To entice the Class of 2009 to participate, Dean Eileen Kennedy issued a challenge: She agreed to match the class

gift, based purely on student participation.

The class responded with a 74 percent participation rate and received a \$1,500 match from Kennedy. In total, the class raised just over \$2,500 for a deserving student in the entering class.

When asked why she gave, Linakis replied, “I contributed to the gift in appreciation of the assistance I received to come to the Friedman School and to support alumni and student services’ ongoing efforts to uphold the school’s outstanding reputation. And because it’s a great business proposition from Dean Kennedy!”



PHOTO: MARCO GARCIA

FISH SCHTICK

Jennifer Wilmes McGuire, N06, talks about seafood for a living. As manager of nutrition communication for the National Fisheries Institute, she spends much of her time extolling the virtues of fish, whether she's meeting with reporters or testifying before a government panel. She even blogs about it, right down to photos of the mahi-mahi burrito she had for dinner. For more on her fish tale, turn to page 19.