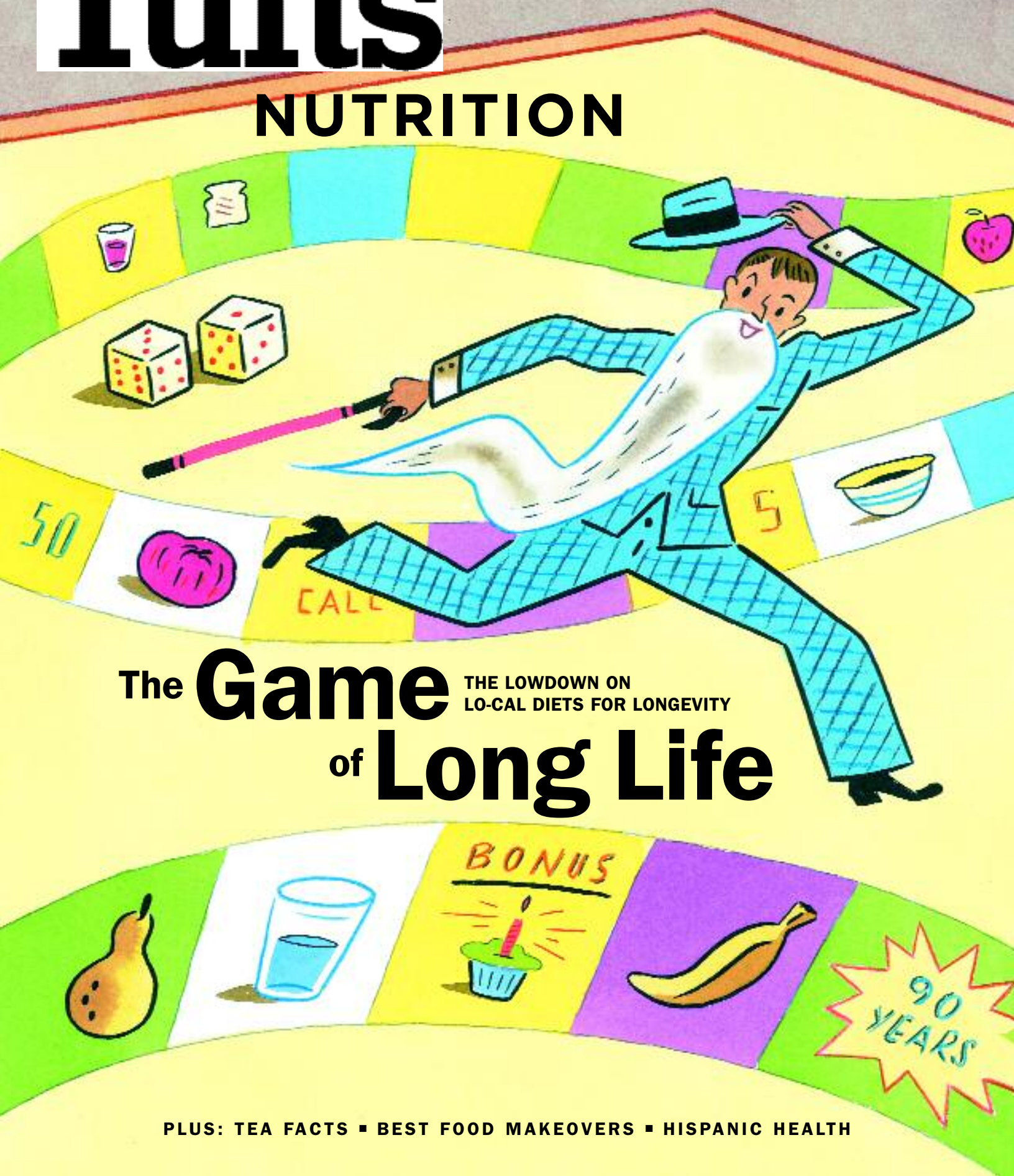


Tufts

NUTRITION



The Game of Long Life

THE LOWDOWN ON
LO-CAL DIETS FOR LONGEVITY

PLUS: TEA FACTS ■ BEST FOOD MAKEOVERS ■ HISPANIC HEALTH

Steeped in health benefits

FOR THIS INSTALLMENT OF "ASK TUFTS NUTRITION," DIANE L. MCKAY, J89, N97, N00, a scientist in the Antioxidants Research Laboratory at the Jean Mayer USDA Human Nutrition Research Center on Aging, serves as our expert.

Q: I'm not a tea drinker, but I'm wondering if it would be worthwhile to start drinking it. Does it have to be green tea? Can I put milk and sugar in my tea and still get the health benefits? Can it help me burn calories?

A: After water, tea is the world's most popular beverage. It is also an excellent source of the antioxidant compounds known as flavonoids. Studies of large populations have shown that people who consume a flavonoid-rich diet have a lower risk of developing heart disease and certain cancers. Although flavonoids are present in small amounts in many plant-based foods, including fruits, vegetables, wine, nuts, seeds, herbs and spices, tea is the major source of dietary flavonoids for many people. For instance, among the 35,000 women participating in the Iowa Women's Health Study, 26 percent of the flavonoids in their diets came from tea.

All non-herbal teas, whether black, oolong, green or white, come from the *Camellia sinensis* plant. Leaves for black and oolong teas are left to ferment after they are harvested, while leaves for green and white teas are not fermented at all. Fermentation changes the chemical composition of the tea leaves, so each tea has a different amount of the individual flavonoid compounds. Green tea has more

epigallocatechin gallate (EGCG) than black tea, but black tea has more thearubigens and theaflavins. All of these flavonoids have antioxidant and other actions, though their specific activity varies in different tissues. Studies suggest the putative health benefits of black, oolong and green teas overlap substantially, so you should drink the one or ones you enjoy the most.

Freshly brewed hot tea contains the highest amount of flavonoids per cup, followed by decaffeinated and iced teas, which have slightly less. Ready-to-drink teas typically contain relatively few flavonoids. Sugar or honey does not affect the flavonoid content of the tea, though it does add calories to an otherwise zero-calorie beverage. Some research suggests milk may reduce the absorption of tea flavonoids, though this issue is far from settled.

Some preliminary evidence shows that the flavonoids in tea, especially EGCG, increase the rate at which your body burns calories, a process called thermogenesis. This has only been demonstrated in a couple of small studies of young, active people of normal weight. In one study of overweight people, EGCG did increase thermogenesis when subjects were also put on a very low-calorie diet, but not if their usual caffeine consumption was high. In any event, substituting tea for a sugar-sweetened soft drink or other calorie-containing beverage will save you calories, and that will definitely help keep your weight in check.

Please send your questions for future installments of "Ask Tufts Nutrition" to Julie Flaherty, Tufts University Office of Publications, 200 Boston Ave., Suite 4600, Medford, MA 02155. Or send an e-mail to julie.flaherty@tufts.edu.

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Cover illustration by Michael Klein



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EMERITUS MERITED

I finally got around to reading the winter edition of *Tufts Nutrition*. It's very well done and definitely a keeper.

There is one flaw that I'd like to call to your attention. In the photo caption on page 40, John Field is identified as a "former faculty member." John is, in fact, still a member of the faculty with the title of professor *emeritus*. I'd hate to think that the school thinks of its *emeritus* faculty as anything but members of the faculty!

I hope this doesn't come across as harsh. It isn't meant to be. As someone who hopes to join the ranks of the *emeriti* myself some day, I think it's important that everyone recognize that while the *emeritus* faculty might not be active in the day-to-day running of the school, they are still considered valued members of the community.

GERARD DALLAL
PROFESSOR
FRIEDMAN SCHOOL

Editor's Note: Well said. We'll add that John O. Field was appointed professor emeritus of the Friedman School in 1998.

HUMBLER BEGINNINGS

One quibble regarding your otherwise nice piece on three early nutrition students ("Where Are They Now?" Winter 2006). The houses on Curtis Street that you describe as the "humble beginnings" of the nutrition school in fact were the second of three homes (so far). The first was 97 Talbot Ave. in Medford (now home to Tufts' Department of Urban and Environmental Policy and Planning). We moved out of there to Curtis Street around 1981 or 1982.

I came to the school in spring 1981, and I may be the only current member of the faculty or administration who had an office in that building. Other occupants were Bob McGandy, John Field, Marian Zeitlin, Stan Gershoff, Kathy Dowd and a few more. Lynne Ausman and Bea Rogers arrived at the school shortly after I did, but I think we had already moved to Curtis Street by that time.

WILLIAM LOCKERETZ
PROFESSOR
FRIEDMAN SCHOOL

HIGH PRAISE

***Tufts Nutrition* won a silver medal for best magazine design from the Council for Advancement and Support of Education (CASE) in its 2007 District I Communications Awards competition. The awards recognize outstanding achievement in higher education, independent school and non-profit organization communications.**

TALK TO US *Tufts Nutrition* welcomes letters, concerns and suggestions from all its readers. Address your correspondence, which may be edited for space, to Julie Flaherty, Editor, *Tufts Nutrition*, Tufts University Office of Publications, 200 Boston Avenue, Suite 4600, Medford, MA 02155. You can also fax us at 617.627.3549 or e-mail julie.flaherty@tufts.edu.

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We welcome your letters.

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<http://nutrition.tufts.edu>.



At home abroad

IN ADDITION TO TEACHING AND INNOVATIVE RESEARCH, TUFTS UNIVERSITY IS known for its dedication to internationalism, the health sciences and community service. These themes are evident in the Friedman School's growing collaboration with the government of Ras Al Khaimah (RAK), one of the seven emirates in the United Arab Emirates.

The overall goal of the RAK-Tufts partnership is to build capacity in education, health and nutrition for the region. To that end, Tufts University and RAK have established two endowed professorships at the Friedman School. The RAK gift will create permanent funds, or endowments, whose investment income will support the salary and scholarly activities of the professorship appointees, sustaining them in their teaching, research and service.

At the same time, we have launched the Friedman School/RAK Health and Education Initiative, a significant venture that will expand the international reach of the school with three programs that address education and health initiatives. The school will work with colleagues in RAK to develop and implement a series of short-term training courses for health professionals in the region designed to help them meet new requirements for continuing medical education credits. We are proposing that these short courses be complemented by a master's degree in nutrition, provided via distance learning.

The initiative's third component is the establishment of a health and wellness center in RAK. As in many other parts of the world, problems related to diet and chronic disease are growing at an exponential rate in the Middle East. Through a range of services, the center will promote healthy lifestyles, linking Tufts' cutting-edge research with application. At Tufts' facilities and on location in RAK, the Friedman School will

be involved in training the health professionals who will staff the new center.

TUFTS AT THE U.N.

The school was well represented at this year's annual meeting of the United Nations Standing Committee on Nutrition (SCN). Ellen Kramer, N03, F03, now with the World Food Program (WFP) in Sudan; Soha Moussa, a Ph.D. student in food policy and applied nutrition who is with WFP in Rome; Diane Holland, N03, MPH03, who works for UNICEF in Sudan; Mesfin Teklu, from World Vision Nairobi; and Frank Martinez-Nocito, N03, of the U.N. Food and Agriculture Organization in Rome, were each engaged in presentations and discussions at the SCN. Christine McDonald, N07, gave a presentation on behalf of Gary Gleason, co-chair of the SCN working group on micronutrients. Shibani Ghosh of the International Nutrition Foundation presented on training fellowships and best practices as part of the working group on capacity building. Faculty members Irv Rosenberg, Patrick Webb and Jennie Coates also attended.

TUFTS IN BOSTON

Closer to home there is also much to report. In March, the first-ever student research day was launched at the Friedman School (see story, page 27). The one-day conference was organized totally by students and involved more than 150 participants from many universities.

Also in March, Visiting Professor Nevin Scrimshaw gave the inaugural seminar in a new set of collaborative activities between the Friedman School and the Institute for Health and Social Justice of the Partners in Health. His lecture, "The Synergism of Nutrition and Infection," was the first in a series being given by faculty this spring on the role of food and nutrition and related policies in improving health for those infected with HIV/AIDS, malaria and tuberculosis in developing countries.

Planning is under way for the 2007 Friedman School Symposium, "What You Eat, What You Do, Who You Are," which will take place October 29–31 at the Boston Park Plaza. Dr. David Barker, whose groundbreaking research on the fetal origins of health and disease has had a profound impact on nutrition and health care over the past two decades, will be the keynote speaker on the first day.

NUTRITION WEEK

We are fortunate that we are able to anchor our 2007 symposium to two other conferences during the same week. On the morning of October 29, the Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA) will celebrate its 30th anniversary. On November 1 and 2, the HNRCA and the International Academy of Nutrition and Aging will host a symposium on "Nutrition Modulators of Physical Function and Aging." This is an opportunity to take advantage of a full week of nutrition in Boston.

EILEEN KENNEDY



A garden for Chinatown

THERE ARE SOME ROADBLOCKS TO PLANTING A GARDEN WHERE A highway used to be: pests, pollution, traffic. And before the first seed is sown, you've got to do a lot of homework.

The Rose Kennedy Greenway is the decorative finale of the massive Central Artery Tunnel Project, commonly known as the Big Dig, which sent Interstate 93 underground. Submerging the highway freed up about 27 acres of land in the heart of Boston that will be dedicated to parks and public space. When the Massachusetts Horticultural Society, which is overseeing the development of three of the Greenway parcels, decided to devote space to a food garden, it turned to the Friedman School for guidance.

Urban agriculture "has existed as long as people have lived in cities," said Rachel Beckhardt, who, along with fellow Agriculture, Food and Environment Program students Sarah Borron, Emily Ladow and Amelia LoDolce, took on the project as a directed study. They uncovered a long

history of city cultivation (think President Franklin D. Roosevelt calling on Americans to grow vegetables in their victory gardens) as well as some best practices for growing food within city limits.

They surveyed 40 urban gardening organizations in the United States and Canada to find out the common challenges and tap the veteran gardeners for some smart solutions. In the winter, when nothing grows, they bring in art and decorative lighting. They plant sunflowers to divert squirrels from eating the vegetables. Raised planting beds deter street pollution from settling on the crops. Coffee grounds from coffee shops, food scraps from restaurants and even doggie droppings can be used for compost. "There are ways you can use waste from the city to then make good soil for the garden," Borron said.

They also investigated how high to make the fences so that people feel welcomed, the need for safe street-crossing points and the likelihood that people will steal food from the garden. (The existing gardens reported surprisingly little "finger blight" or vandalism.)

The final plan will most likely follow one of three themes. A world garden would grow foods from different cultures and highlight the city's diversity. A Boston food garden would chronicle the city's agricultural and culinary history. (Cows used to graze on the Common.) A "healthy eating" garden would have nutrition lessons for both adults and children.

"Kids respond to gardening, and they are much more likely to try fruits and vegetables that they have contributed to growing," Ladow said.

The garden, which could open as soon as summer 2008, should help city dwellers know more about where their food comes from. Although the garden will occupy only a portion of a 1/3-acre plot, "you can do a lot of education with a small piece of land," said Prof. Kathleen Merrigan, the project advisor.

PILL POPPERS

ACCORDING TO A RECENT ANALYSIS IN THE *Journal of the American Medical Association*, antioxidant vitamins, including A, E and C, don't help people live any longer than they would without the popular supplements. The new study, undertaken by scientists at Copenhagen University in Denmark, analyzed 68 randomized trials, involving 232,606 people from 1977 to 2005, and showed no long-life benefit.

Some experts caution that it's too early to toss out all vitamin pills, or to dismiss the possibility that they may have some health benefits. Alice Lichtenstein, the Gershoff Professor at the Friedman School, said the study supports the idea that antioxidants work best when consumed in food. The takeaway message, she said, is this: "Rely on food to get your nutrients."

When the Danish researchers eliminated the lower-quality studies and looked only at the most trustworthy ones, they actually found a higher risk of death for people taking vitamins. "The results were shocking to us; we didn't expect this," said a lead scientist on the study.

Jeffrey Blumberg, head of the Antioxidants Research Laboratory at the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts, was similarly baffled by the findings. Blumberg told *USA Today* that he didn't understand how antioxidants given in pill form could be harmful when ample evidence shows that a diet rich in foods containing antioxidants is healthful.

An estimated 80 million to 160 million people in North America and Europe—as many as 20 percent of all adults—take antioxidants. Last year, Americans spent \$2.3 billion on nutritional supplements and vitamins at grocery stores, drug stores and retail outlets.



Knowledge on aisle five



FOR HEALTH-CONSCIOUS SHOPPERS, A STROLL DOWN THE AISLE OF THEIR LOCAL supermarket can be both an educational—and an overwhelming—experience. Offers to help consumers lose weight and lower their cholesterol jump off boxes and cans. For many, it can be a lot to digest.

Some supermarket chains are stepping in to try to help. Using a variety of rating systems—involving symbols like stars, letters and traffic lights—several companies are experimenting with new systems that they hope will enable shoppers to make faster, smarter purchasing decisions.

Last fall, Hannaford, a 158-store chain in New England and parts of New York, unveiled its Guiding Stars program, which rates 27,000 grocery items between no stars (soft drinks, for example) and three stars (fruits and vegetables).

Jeffrey Blumberg, a Friedman School professor and a member of the scientific team that put the ratings together, sees the shelf symbols as a starting place. "We hope that people will use the stars to read the food labels," he told *The Washington Post*.

The more information we can provide to consumers, the better, said Eileen Kennedy, dean of the Friedman School. Supermarket programs "are absolutely a step in the right direction because they simplify a very complex body of information for the consumer," said Kennedy, who, along with a team of Friedman researchers, is currently involved in a project with Safeway grocery stores, which owns supermarkets in the United States and Canada, aimed at educating consumers about the nutritional value of its food products.

There are some potential pitfalls. One risk, said Jeanne Goldberg, G59, N86, director of the school's Nutrition Communication Program, is that these programs could add to consumer confusion by dumping even more data into the marketplace. With so much information already on packages, and rating systems that differ from store to store and brand to brand, consumers may be overwhelmed.

"There is growing concern that all of this messaging, which is company-specific, is going to further clog the airwaves," said Goldberg, noting that the next step may be to create a system that appeals to industry and uses common language and common signals.

If consumers respond to aisle-side recommendations, it may help prompt food companies "to reformulate products to earn more stars," Blumberg said. "That's the underlying hope."

—Meghan Mandeville



Supermarkets like Hannaford are rating the nutritional value of their groceries.

Una Vida Saludable

**Research may help stateside Puerto Ricans
lead healthier, happier lives**

IT IS HOLY THURSDAY, AND THE SENIORS AT THE ALIANCIANOS UNIDOS adult health center are observing the Last Supper with bagels and cups of grape juice. One man reads passages aloud from a dog-eared bible; another plays a guitar around the edges of the verse. Among them is Epifania Gonzalez, 79, who surely has longevity in her genes. Her father lived to be 114 years old. His sister made it to 110. But by the time she reached her early 70s, Gonzalez—who left her native Puerto Rico for the United States 10 years ago—had developed high cholesterol, diabetes and osteoporosis.

BY JACQUELINE MITCHELL PHOTOS BY JOEL HASKELL



Maria Rodriguez celebrates
her 90th birthday.

Gonzalez's story is a common one among Boston's Puerto Ricans, who are far more likely to suffer from chronic diseases, depression, cognitive impairment and physical disability than their neighbors. Katherine L. Tucker, a Friedman School professor and director of the Dietary Assessment and Epidemiology Research Program at the Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA), has been studying health disparities among Boston's Hispanics since the late 1990s. Back then, when she and her colleagues began a seven-year neighborhood-based research project called the Massachusetts Hispanic Elders Study (MAHES), there was "almost nothing available" on the subject, Tucker says. But when it was over, they found "significant health disparities, even compared to low-income whites," she says. "Now, we're trying to understand why."

That's the goal of the four research projects currently under way at the Boston Puerto Rican Center for Population Health and Health Disparities, one of eight NIH-funded research institutes intended to address U.S. health disparities. In Boston, experts from Tufts, the HNRCA, Tufts-New England Medical Center, Northeastern University and La Alianza Hispana, a prominent community organization for Latinos, are working together to examine the relationship between stress, nutrition, genetics and chronic diseases in the region's largest Hispanic group.

Tucker, the center's director, is principal scientist for a two-year study following 1,100

Boston-area Puerto Ricans between the ages of 45 and 75. During four-hour, in-home interviews, researchers took participants' medical histories, as well as their social and emotional histories. Through questionnaires and blood and urine tests, Tucker and her colleagues are attempting to measure the toll daily physical and emotional stress takes on the body—a metric they call allostatic load—and how that stress manifests as depression or physical disability. Then the researchers will examine how social and nutritional interventions might mitigate the effects.

"We hypothesize that a combination of stressors create wear and tear on the body, and that's made all the worse when you don't have adequate nutrition," Tucker says.

That's where Odilia I. Bermudez's research comes in. Working with a subset of 125 men and women randomly selected from Tucker's study, Bermudez, an assistant professor at the Friedman School and Tufts School of Medicine, is testing the effects of nutritional supplements on the elders' allostatic load. The participants receive monthly supplies of over-the-counter multivitamins and minerals. At the end of the two-year study, she will be able to determine if improving nutrient intake helped decrease the evidence of stress or stave off chronic diseases.

"The stressors we're talking about are not just emotional but also physical," Bermudez says. "We wanted to get deeper into their causes and consequences."



La Alianza Hispana is an important health and social resource for Latinos in Boston, including Eridania Cabrera and Petra Rivera (below), Domingo Alvarado (right), and Ramona Cesena and Maria Rodriguez (opposite page).



Ordovas is looking at genetic variants that might make Puerto Ricans more susceptible to metabolic syndrome, diabetes, inflammation and stress when living in the United States.

A POPULATION PORTRAIT

The researchers continue to build upon the MAHES study to paint a detailed portrait of a previously understudied population. In some ways, the population's health mirrors that of the rest of America: Puerto Rican elders are about as obese as their non-Hispanic white counterparts, with Puerto Rican men managing their weight slightly better. Yet Puerto Ricans suffer disproportionately from diabetes. In a 2000 study, Tucker and Bermudez found that 38 percent of Puerto Ricans had diabetes, compared to just 23 percent of their non-Hispanic white neighbors. What's more, Puerto Ricans develop diabetes at lower body weights than their non-Hispanic white counterparts.

Jose Ordovas, a Friedman School professor and director of the Nutrition and Genomics Laboratory at the HNRCA, seeks a genetic basis for these health disparities. Using blood and data collected as part of Tucker's current study, Ordovas is looking at the genetic variants that might make Puerto Ricans more susceptible to metabolic syndrome, diabetes, inflammation and stress when living in the United States. Ordovas and his colleagues will investigate the link between certain common genetic variants and these measures of allostatic load in order to provide a basis for targeted prevention.

At the same time, the research team is looking at the elders' mental well-being. In



Maria Rodriguez, Farmacio Suarez and Tomasita Mercado play bingo after lunch.

December 2006, they released preliminary results showing that 58 percent of women and 38 percent of men in Boston's Puerto Rican community suffer from depression, compared to 22 percent of non-Hispanic whites. The numbers made headlines, though they only confirmed what the scientists—and community leaders—already suspected. A 2000 study of 715 Hispanic elders and 238 non-Hispanic whites in the same neighborhood found that depression was significantly linked to being female, living alone and having health problems. Tucker's frequent collaborator, Luis M. Falcon, an associate professor in the Department of Sociology and Anthropology at Northeastern University, is exploring the link between psychological and social pressures and poor health. Through extensive interviews, Falcon hopes to pinpoint the sources of mental stress among Boston's Puerto Rican elders, as well as sources of social support that might mitigate that stress.

One such source, La Alianza Hispana, a community organization in Roxbury, is an important collaborator on the research projects, helping recruit subjects for the study. Working with the scientists was an easy decision, says Marketing and Community Relations Coordinator Josiane Martínez, because Puerto Rican elders "are hungry to know more about their health."

The study helps community leaders better serve their population, says executive director Janet Collazo. "This is a reality check for us. Now we have facts supporting what we already know. It's not just us as an organization talking to ourselves."

"I SLOWED DOWN"

A petite woman with a shock of white hair over bright blue eyes, Gonzalez attributes her failing health in part to her emigration from Puerto Rico 10 years ago.

"I was always active, working all the time," she says as Martínez translates. "I slowed down a little when I came to the States."

Today, Gonzalez, who lives with her 36-year-old daughter, spends most weekdays at La Alianza Hispana's Senior Center in Roxbury, where she has healthy breakfasts, lunches and snacks. She also participates in daily exercise sessions and, she says with a smile as she raises her arms above her head, "We dance here, too."

Once Gonzalez learned about her health problems, she made an effort to eat more fruits and salad and cook more vegetable-based soups. She said the changes didn't mean she had to stop eating her favorite Puerto Rican dish of pigeon beans and rice. Now she just limits her portions.

Tomasita Mercado, who has lived in Boston for 38 of her 67 years, learned a similar lesson both through her participation in the study and her daily attendance at the senior center with her husband.

"I used to eat everything, but now I eat leaner meats and less fried stuff," she says. "We still eat traditional meals, but we make little changes to make them healthier."

Marisol Amaya, the program manager at the senior center, says that most of her clients have lost weight and seen their blood sugar levels go down. "We teach them to eat healthy and still save money, since many fruits and vegetables in this country can be expensive," she says.

These are lessons worth passing down for generations.

"Among Latinos, the elders are still the head of the family," Amaya says. "The universities teach us how to improve the life of the seniors, and what we teach the seniors, the seniors teach the family." **TN**

Jacqueline Mitchell is a senior health sciences writer in Tufts' Office of Publications.



The **Game** of **LONG** **Life**

Hard-core calorie cutters believe they are on the road to immortality. But do longevity diets hold promise for the rest of us?

MORE THAN 70 YEARS AGO, A CORNELL UNIVERSITY PROFESSOR, Clive McKay, found that a peculiar thing happened when he put rats on a diet. They got lean, and sometimes mean, but they lived longer. A lot longer. Cut a rat's rations without skimping on nutrients and its lifespan starts to stretch. Cut them even more, and instead of three years, a rat can survive to a ripe old age of nearly 5. ■ "It's amazing," says Susan Roberts, director of the Energy Metabolism Laboratory at the Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA) at Tufts and a professor of nutrition at the Friedman School. "You can restrict rats down to about a third of what they would choose to eat, and they still live, and they live longer, and they maintain the muscles and vitality of young rats. It's the only intervention that's ever been done that's known to extend lifespan. And it doesn't just extend lifespan, it delays biological aging. It virtually eliminates the age-associated diseases you currently get in elderly rodents. It's enormously effective."





BY JULIE FLAHERTY
ILLUSTRATIONS BY MICHAEL KLEIN



Scientists have found similar evidence of a slowed-down aging process in calorie-restricted spiders, dogs, cows, mice, yeast, roundworms and fruit flies. A group of rhesus monkeys at the University of Wisconsin has been dieting since 1989, and preliminary results suggest that they are healthier than their free-eating counterparts, showing less diabetes, cancer, and yes, even fewer wrinkles.

Whether the trick works in humans remains to be seen—not that that has kept some people from biting off less than they can chew in the search for a longer and healthier life. You may have heard of the Calorie Restriction Society, which counts about 1,700 constant dieters as its members, and if you have, you’ve probably been either inspired by their self-discipline and aspirations of immortality or turned off by reports of sunken cheeks and freakishly Spartan lifestyles. One recipe for Caloric Restriction, or CR, suggests dieting until you weigh 10 to 25 percent less than you did in your late teens or early twenties—and then eat only enough calories to stay at that weight.

But what if it is not an all-or-nothing-for-dessert proposition? The National Institute

on Aging (NIA), for one, believes there might be some anti-aging benefits to a less-extreme CR diet that a mere mortal can do. So the NIA awarded \$20 million to Tufts and two other U.S. universities to conduct the first randomized controlled trial to study the long-term effects of caloric restriction in people. In phase one, 46 people signed on at Tufts for a year of belt-tightening. Recruitment of study volunteers for phase two, a two-year commitment, is already under way. At issue is whether cutting calories but upping nutrition will slow the signs of aging (as measured in molecular biomarkers, not crow’s feet) and whether the CR lifestyle is something we could grow to love.

The study, called the Comprehensive Assessment of the Long-term Effects of Reducing Intake of Energy, or CALERIE, offers a kinder, gentler starvation that won’t

push anyone into the “underweight” classification. The researchers determine how many calories participants need to keep their current weight, which can vary from mid-range normal or slightly overweight, and then they shave off about 25 percent.

“We’re cutting what we believe to be not such a big deal, actually, 600 or 700 calories” each day, says Roberts, the principal investigator for the study. “It’s less than a conventional weight-loss diet.” It sounds reasonable: Skip that Starbucks’s cranberry orange muffin and its 500 calories, and you’re almost there.

Most study participants lose about 15 percent of their body weight in the first nine months, which Roberts says made for a lot of “happy campers” during phase one. One study subject, told she would have to wait for a room to disrobe in before her weigh-in, replied: “With a body like this I could just change in the hall.” And she seemed prepared to do just that.

READ THIS, LIVE FOREVER

Now before you start living off of soda crackers and Diet Coke, know that the theory behind Caloric Restriction is getting as much nutrition



LOSE
2
Days

**"We're cutting what
we believe to be not such
a big deal, actually,
600 or 700 calories"
each day.**

SUSAN ROBERTS

as you can packed into the allowed calories. That means lots of vegetables and fruits, carefully selected animal and plant proteins, some whole grains, and unsaturated fats from nut and plant oils. Less wiggle room for sugars, flours and processed foods.

Roberts explains: "It's a healthy diet that cuts calories but doesn't cut vitamins and minerals. And that's very important, because even in animals, if you feed animals the same food, so they are getting less of everything, they don't live longer, they don't live healthier. What you have to do is specifically cut out the calories."

But couldn't you have that cookie if you hit the treadmill to burn it off? Increased exercise, at least in animals, doesn't seem to have the same life-extending effects. That was news to Eric Evans, 41, a financial advisor from North Reading, Mass. Before joining the CALERIE study, Evans believed exercise was the key to staying healthy. At different times in his life, he had trained for marathons and worked out four hours a week. But as he got older, exercise was less effective at keeping off the weight.

For the study, Tufts provided his meals for six months while training him on portion sizes, balanced nutrition and lifestyle changes that could help him stick to the diet. Most of the foods he truly enjoyed, like the bulgur and beans, wheat berry salad and apricot-blueberry yogurt. A few, like the vacuum-packed scrambled eggs, showed the limits of having

A DAY IN THE LITE

(A sample menu from the CALERIE study)

BREAKFAST

Toasted oat cereal
Almonds
Skim milk
Pineapple



LUNCH

Tuna salad (made with olive oil)
Pita bread
Black bean and vegetable salad
Red grapes

DINNER

Chicken Alfredo pasta
Lettuce/tomato salad
Oil and vinegar dressing
Dinner roll



ADD
3
Years

your food prepared in a research kitchen. Roberts says they've listened to the phase one volunteers and tweaked the menus for phase two. Besides, as any dieter knows, food takes on a renewed succulence when there is less of it. "You really got to enjoy just what an apple was all about," Evans says.

With scientific precision, he lost three-quarters of a pound every week for the first 20 weeks, and anecdotally, he felt really good.



In the second half of the study, it was up to him to create his own meals with the guidelines he had learned, which took some effort. He estimates that meal planning, shopping, measuring and cooking took an extra five to seven hours each week.

If one of the goals of CALERIE is to gauge CR in the real world, Evans found it socially limiting. The few times he took his wife out to a restaurant, he would order water. Or try to sneak in his own CR entrée. "It was little awkward," he says. "She would get invited out to dinner, and I guess I could go along, but I really didn't want to. That can be a little bit restrictive."

Over the course of the study, he went from 188 pounds to 155 pounds, losing 18 percent of his body weight. His blood pressure "dropped right to the floor" to 100/62. "It just felt like I was getting exactly what I needed," he recalls. "I thought this is what being a human being should feel like. I felt almost—prehistoric."

Indeed, some scientists believe there is a part of us, deep in our genes, that remembers the days when fast food was a fleeing gazelle and a happy meal was any meal at all. That is one theory of why CR works: that when food is scarce, cells

direct all their energies toward repair and maintenance, much like a business facing draconian budget cuts.

Another hypothesis is that mitochondria, the powerhouses of cells, consume less oxygen or burn oxygen more efficiently when calories are in short supply, producing fewer of those nasty free radicals, scapegoats of aging that they are.

Research has also focused on the protein SIRT1, which affects fat storage and release in mammals, and which may get deliberately switched on by the hormonal alterations of caloric restriction.

"Because there isn't any one theory that is recognized to be preeminent in aging, we're going to be looking at SIRT proteins and immune function and oxidation damage," Roberts says. "We're going to be covering everything to see what we can best correlate with the data."

The short version of the testing list includes immune function, bone density, growth hormone, inflammatory factors, thyroid function, insulin sensitivity, energy metabolism, cognition, psychology and mood, food preferences, food cravings, eating behavior and body image.

With its broad scope, the study involves collaborators from all over the HNRCA, including Dr. Simin

Nikbin Meydani, director of the Nutritional Immunology Laboratory, for immune function; Dr. Edward Saltzman of the Energy Metabolism Laboratory for medical safety and overall health; and Roger Fielding, N93, director of the Nutrition, Exercise Physiology and Sarcopenia Laboratory, for body composition.

The dieters have PDAs to keep daily food logs and count up their nutrients and calories. They are also in constant contact with a dietitian. "Weight measure is a good indication of whether they are adhering to their diet," says Christine Ferrone, the study manager. "If their weight isn't decreasing, we know something is going on."

If that fails, Roberts has an uncanny ability to guess a person's body mass index (BMI) within a half a point, just by looking.

THE 'VITALITY DIET'

Just to be clear, Roberts, who trained as a chef before becoming a nutritionist, has nothing against food. She's proud of the fact that in phase one, most people did not report being hungry.

"That's the most important thing for me," she says, digging into her lunch, a salad of lettuce, bell peppers, carrots, steamed chicken and a peanut dipping sauce. "They have to feel satisfied, and they have to enjoy food. People care about what they eat."

Roberts is eating with such relish you would think she was on Caloric Restriction herself. In fact, she is, although she thinks "Vitality Diet" would be a more apt moniker.

"I would be 20, 30 pounds heavier, but I eat in Caloric Restriction ways," she says. "And that does mean eating fewer empty calories. But you know, you can't give people no empty calories. On something like the Ornish diet, people have to eat chick peas and brown rice, and they get bored to death. We specifically build in treats every day."

Whether or not the study participants become CR converts, they will walk away with a blueprint for healthy eating.

Before you start living off of
soda crackers and Diet Coke,
know that the theory behind
Caloric Restriction is getting
as much nutrition as you can
packed into the allowed calories.



LOSE
2
Months



LOG

DIET OR DISEASE?

The Caloric Restriction movement is often accused of lending legitimacy to anorexia nervosa. CR practitioners are quick to point out that Caloric Restriction is about health and longevity, not appearance or fear of weight gain. And while anorexia is usually a hidden obsession, CR proponents are often evangelical in their openness. Caloric Restriction is foremost about nutrition, they say, while anorexia usually leads to malnutrition.

Jennifer Murphy, NOO, a nutrition therapist who specializes in eating disorders, notes that anorexia is a disease, not a lifestyle choice. "It may be prompted by stress, physical or mental trauma, severe depression or anxiety," she says. "Individuals with anorexia nervosa often find themselves deep into the disease before they realize they need help."

At the same time, she wonders if Caloric Restriction, even for the right reasons, may lead to something unhealthy.

"The diet has a positive approach and promotes a lot of good-quality food, but the bottom line comes down to: Is this too much work for people to actually follow? If you are spending too much time in your life preparing, measuring and controlling what you are eating, is this disordered? As I am someone who promotes normalized eating, this diet seems a little excessive for me."

The Tufts CALERIE (Comprehensive Assessment of the Long-term Effects of Reducing Intake of Energy) study, for its part, is not designed to diet participants down to the point of being underweight. Because researchers are interested in the psychology, as well as the physiology, of attempting Caloric Restriction, participants are carefully monitored by both dietitians and psychologists throughout the study.

"You have to be a little knowledgeable in order to not just follow a Caloric Restriction regimen but to avoid the 40-pound weight gain that the average American goes through between the ages of 20 and 50," Roberts says.

Given the growing rate of obesity in the United States—and the number of people who try and fail to lose weight every year—the obvious question becomes: Is the CALERIE

diet something that most people would be able to follow?

"I don't think it would work for everyone," Roberts says. "But I think a lot of people could. We can't put numbers on it yet, but my personal guess is that 20, 25 percent of people wouldn't find it that hard."

Some question whether the study goes far enough—or thin enough—to truly test the longevity hypothesis. Michael Rae, 36, a devotee of CR who lives in Philadelphia, sees the CALERIE study as a look at the benefits of restoring healthy weight in the moderately overweight, but not a real test of Caloric Restriction.

"It would certainly be helpful if the results were analyzed in subgroups to show us the distinct effects, if any, of an energy-restricted diet in people who were already of healthy body composition to begin with," Rae says, "and in particular in those who may reach the very low end of the spectrum in final weight." Those people like him. With only 115 pounds on his 6-foot-tall frame, Rae has a BMI of about 15.6. (Supermodel Kate Moss, by comparison, is a hefty 16.4)

People who diet down to such a low BMI may have enviable cholesterol levels and blood pressure, better-functioning hearts and fewer signs of inflammation, but there can be side effects. With less body fat,

serious calorie restrictors may sometimes get cold easily or find sitting uncomfortable. Some report a lowered libido or menstrual irregularity. Other risks include slower wound healing, loss of strength from reduced muscle mass and more fractures from reduced bone mass.

All that—and an uncertain reward. Given the inherent differences in the species, some scientists believe calorie restriction won't increase life in humans as dramatically as it does in other animals. From mathematical models, John Phelan, an evolutionary biologist at the University of California at Los Angeles, predicts that a lifetime of food deprivation will translate into human life extension of a mere 3 to 7 percent.

Even if it turns out that the most nutritionally disciplined among us will live the longest, that doesn't mean the rest of us should reach for the donuts in despair.

"People get the impression that there are two choices with respect to life-extension diets: starve yourself or eat 5,000 calories a day," says Brian Delaney, the president of the Calorie Restriction Society and co-author of *The Longevity Diet* (Marlowe & Company, 2005). "It really does not make scientific sense to portray CR as being one specific degree of restriction. There doesn't appear to be a threshold effect."

"There are these milder, doable versions of CR that the public should be aware of," Delaney says, emphasizing that with eating better and slimming down even a little, "it seems very likely that there will be mild retardation of the aging process."

Since completing the CALERIE study, Eric Evans says his lifestyle changes are sticking. He eats a whole grain breakfast now, instead of just coffee, and drinks more milk. He put on a few pounds after the study (his wife thought he was getting a little too skinny, anyway), but his weight has been stable for about a year now.

But a lifetime of restraint? Evans, for one, thinks there is a happy medium. "To manage this kind of lifestyle, it would be such a sacrifice," he says. "I just wonder, living that long, is it really worth that effort?"

Rae banks on it with every calorie he avoids. "We love life and look forward to more."

For more information on the CALERIE study, write to calerie@tufts.edu or call 617.556.3125. **TN**

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THE best thin SINCE SLICED BREAD

NUTRITIONISTS HAVE LONG BEMOANED THE JUNK FOODS THAT HAVE TAKEN OVER grocery store shelves. The seemingly endless varieties of cookies, chips and processed foods have become increasingly easy to eat, requiring nothing more than a hand in a bag or a zap in the microwave. ■ But there is a brighter side. In recent years, some inherently healthful foods, like fruits and vegetables, have gotten makeovers that make them more appealing to consumers. Some are more convenient to cook or eat. Others have been made tastier. Still others aim to be more nutritious. ■ So we asked some Friedman School faculty, staff and alumni what they personally consider the best advances in convenience or taste or healthful transformations. In this informal survey, they were free to pick the foods their families enjoy or the foods they think will make the biggest difference to consumer health in general. These are some of their favorites.

BY JULIE FLAHERTY PHOTOS BY VITO ALUIA



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CLEAN GREENS

Woe is the lonely salad spinner: The hands-down choice in our informal survey was bagged, pre-washed salad greens. Sarah Sliwa, N08, a project manager for the John Hancock Center for Physical Activity and Nutrition at the Friedman School, said that judging from her roommates' shopping habits and nutritional interests—or lack thereof—this invention has done wonders “to make the consumption of vegetables as easy as chips and salsa: open a bag, open a jar.”

Earthbound Farm, an organic grower in California, said it was the first company to package lettuce in bags, starting in 1986. They found that baby lettuces were more resistant to decay than cut mature lettuces, and worked on ways to harvest greens in their infancy. The science keeps improving, although for competitive reasons, producers are very secretive about their washing and bagging processes. One technique is to remove oxygen from the bags and inflate them with nitrogen to protect leaves from bruising and wilting. Most employ special plastic packaging that slows the rate of decay. But the greens must be kept cold and eaten

within about 15 days of harvesting.

Consumers don't seem to mind that bagged lettuces can cost twice as much as a head of lettuce. Janet Forrester, an associate professor in the department of Public Health and Family Medicine at Tufts School of Medicine, said it has been years since she bought a head of romaine or iceberg. “Though they are a little more expensive, they save me money in the end because I am not always throwing out unused ends or the first three layers of a head of lettuce,” she said.

The \$2.8 billion convenience greens industry took a significant hit last fall, when an *E. coli* outbreak in fresh spinach killed three people and sickened nearly 200. Following the September spinach recall, packaged salad sales were down 16.8 percent in the fourth quarter of 2006, compared to the same period in 2005, according to the Perishables Group, a consulting firm for the fresh food industry. Some have blamed increased illness from produce contamination on imported products, more widespread distribution, lack of inspection and—in a painful health irony—growing consumption.

WHOLE-WHEAT PASTA

If there was a casualty of the carb wars of a few years back, it was pasta. Followers of the Atkins and South Beach diets shunned bowls of spaghetti as glycemic nightmares. The industry responded with higher-protein, higher-fiber pastas that featured whole wheat, and the trend gained momentum in January 2005, when the Dietary Guidelines for Americans encouraged everyone to eat more whole grains.

Almost 100 new whole- and multi-grain pasta products were launched in 2005, compared to 11 in 2001. They range from whole-grain-laced products that look and taste like white pasta to dark and toothsome 100 percent whole-wheat pastas with distinct flavors all their own.

“We switched to this type exclusively, and the kids didn't flinch at all,” said Deanna Campbell, N91, a registered dietitian and a mother of three.

Whole-wheat pasta has two to three times more fiber than traditional pasta and more micronutrients, such as folic acid, magnesium and vitamin E. But to get the most nutrition, you have to read the pasta box carefully. Most quality pasta is based on hard durum wheat, which has more protein and gluten and less starch than other wheat, and makes a tough, stretchy dough that is perfect for contorting and squeezing into myriad shapes. If the bran and germ are removed, as it is in most “white” pastas, the flour is called semolina. If the whole kernel is used, the label should read “whole durum wheat.” Some of the newer pastas employ a mix of the two flours, or they may feature oat, barley, spelt, brown rice, quinoa, buckwheat and protein-rich legumes, including lentils and chickpeas, all of which are nutritionally superior to semolina alone.

Thanks, Dr. Atkins. “Hopefully these foods will remain available even now that the low-carb diet is less popular,” said Nicholas Hays, N02, a researcher at the Donald W. Reynolds Institute on Aging at the University of Arkansas for Medical Sciences.



PRE-PREPPE PRODUCE

Forget about thinking outside the box. Produce producers have their minds in the bag. Shredded cabbage for making cole slaw, trimmed broccoli and cauliflower for stir fries and peeled and cubed butternut squash have all helped win people back to the joys of cooking. But of all the pre-cut fruits and vegetables that have come on the market in recent years, the “baby” carrot won the most hearts in our survey.

The baby carrot isn’t exactly a juvenile. It was born in 1986, when a California farmer named Mike Yurosek was looking for a way to sell misshapen but otherwise tasty mature carrots. He used an industrial green bean cutter to slice them into 2-inch lengths, an industrial potato peeler to smooth them down and was left with something cute and snackable.

“I don’t even mind paying more for the individual serving bags—I know, what a waste!—but it is fast and easy to throw them in lunch bags,” said Melinda Maryniuk, G79, a graduate of the master’s and Dietetic Internship Program at the Frances Stern Nutrition Center and associate director of affiliated



programs at the Joslin Diabetes Center. “I travel a lot for business and have found a few places, like convenience stores, that sell small bags of the mini-carrots ... that I find so helpful.”

After they are cut, most fresh veggies are washed in a chlorine solution to kill harmful bacteria and then rinsed in plain water. Then they are packaged with less oxygen and more carbon dioxide to slow decay. Even so, compared to their whole counterparts, cut veggies have a shorter shelf life (they need to be stored in the refrigerator) and are faster to lose nutrients like vitamin C.

Pre-cut fruit was a little trickier to bring to market. The USDA Agriculture Research Service and Mantrose-Hauser Co. spent a decade developing a coating (a blend of calcium and vitamin C) that prevents sliced apples from browning and turning mushy without changing their flavor.

In our survey, pre-cut fruit was not a clear-cut success. Some agreed with Kelly Kane, nutrition education coordinator at the Frances Stern Nutrition Center, who said pre-cut fruit is a hit with her two children, ages 2 and 5.

Others felt like Marla Rhodes, N96, who can see the value of cut-up melon and pineapple that is hard to deal with whole, but not with fruits that come in their own natural wrappers. “Pre-sliced apple dippers infuriate me. Why are we using excess throwaway packaging to give these to children when they can hold an apple in their hand and take a bite?” said Rhodes, who managed a community farm. “Talk about removing food from its natural source! Smaller, kid-sized apples that actually have taste will do the trick.”

Trade-offs

When it comes to convenience foods, you have to decide whether the time saved is worth the additional price. Arizona State University conducted a study in 2003 to determine the cost-per-hour equivalent a consumer pays for several value-added groceries. The time savings for salad mixes and some pre-prepped vegetables, like broccoli, seemed worth the extra expense. Less cost-effective were shredded cheese, cheese sticks, sliced apples and trimmed celery, for which consumers were paying the equivalent of \$50 to \$80 per hour for the labor they avoided.

OJ WITH CALCIUM

If you are going to include juice as one of your daily fruit servings, it is hard to go wrong with orange juice. Compared to other juices, it is typically higher in vitamins C, A and the B vitamins, as well as iron and potassium. For many people, OJ is now also a go-to source for calcium.

Minute Maid was the first company to market a nationally branded calcium-fortified orange juice in 1987, the same year the National Academy of Sciences increased its calcium-intake recommendations in an effort to prevent osteoporosis. Today, calcium-boosted products account for one-third of fresh, refrigerated OJ sales in the United States, according to the Nielsen Co.

"Not being a milk drinker, I'm always trying to find alternatives to increase the amount of calcium in my diet, and the OJ is a great option," said Laura Coleman, N87, N95, a registered dietitian.

Naturally calcium-rich foods include cheese, milk, yogurt, tofu, canned salmon and sardines (with the bones), leafy green vegetables and broccoli. But many people can't or choose not to eat dairy, and it is difficult to get adequate calcium from the other sources alone. For those who balk at choking down calcium supplements each day, a glass of fortified OJ, which supplies 35 percent of the rec-

ommended daily allowance for calcium and 25 percent of the allowance for vitamin D, seems like a good deal.

Shara Aaron, N00, owner of NutCom, LLC Nutrition Communications, said that the orange juice makeover has made a big difference to her family and clients. "Since very few drink milk, it's really a no-brainer," she said.

Judy Salkeld, N96, project director with the Brown University Institute for Community Health Promotion, agreed. "You get the benefits of a serving of fruit plus part of the calcium benefits you would get from a dairy drink," she said.

OJ seems to do a fine job of transporting calcium. A one-week study with senior citizens at the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts found that calcium was equally well absorbed from skim milk, fortified orange juice and calcium-carbonate tablets.

That said, fortified OJ can't replace milk when it comes to protein, vitamin B12, riboflavin and phosphorus, but it is a step toward achieving the 1,000 to 1,500 milligrams of calcium that adults need each day.

GRAINS, GRAINS EVERYWHERE

Whole-wheat bread has always been a nutritional powerhouse, but now you no longer have to drive to the health food store to find a wide selection.

"I remember just five years ago it was like an Easter egg hunt to find a supermarket that sold 100 percent whole-wheat bread," said Heather (Case) Rafferty, N97, director of brand and marketing services for the Culinary Institute of America. "Now whole-wheat breads and tortillas can be found in almost every supermarket." Others have praise for the proliferation of whole-grain varieties of pizza dough, pita bread, English muffins, buns, bagels, rice, pilafs and couscous.

Just because the shelves are teeming with whole-grain breads doesn't mean that consumers will rush to abandon their soft and mild white loaves. To woo those reluctant consumers, ConAgra foods spent at least eight years and millions of dollars developing Ultragrain, a whole-grain wheat flour introduced in 2004 that has a taste, texture and color similar to refined flour. Sara Lee, for one, uses it in hot dog buns, bagels and its version of whole-grain white bread.

Some hope these undercover whole grains will help white-bread eaters transition to the brown stuff. Others are dubious that highly processed breads with additives like dough conditioners and high fructose corn syrup will ever make the grade nutritionally, even with the whole-grain designation. "I prefer grain products that have only two to three ingredients on the label," said Sandra Bouma, N82, a registered dietitian at the University of Michigan Hospital.

Other favorites

- A larger selection of flash-frozen vegetables and fruits (like mangoes and cherries)
- Better non-fat and low-fat dairy products
- Shelled edamame
- Quick-cooking whole grain mixes
- Lactose-free products
- Soy products
- Farmers markets
- Heirloom vegetables
- Drinkable and portable yogurt
- Single-serving cottage cheese
- String cheese
- Berry and pomegranate juices





DESIGNER EGGS

Eggs all but disappeared from the breakfast table in the 1980s, when their high cholesterol content was considered a no-no for health-conscious hearts. But then scientists found that saturated fat, rather than dietary cholesterol, was the bigger culprit behind high LDL levels, and most people were given the OK to scramble again. As if to mark its return to the spotlight, the humble egg has gotten all dolled up in recent years, with some sporting extra Omega-3 fatty acids and other nutritional

bonuses. Eggs with Omega-3 health claims accounted for 9.4 percent of the \$2.4 billion Americans spent on fresh eggs sold at food, drug and mass merchandiser stores other than Wal-Mart in the 52 weeks ending March 24, 2007, according to Nielsen.

"We definitely appreciate sources of Omega-3s other than fish," said Jennifer Spadano, N97, N04. Susan Phinney, N98, still uses mostly egg substitute to keep cholesterol down. But, she said, "When I eat whole eggs, I am delighted to have the option of eggs with more Omega-3s."

Omega-3 fatty acids are a group of polyunsaturated fats that some evidence has shown to be heart-healthy. The most common sources are fish oil, some nuts and some vegetable oils. So how do they get them into an egg? It comes down to what the hens are fed. Chicken feeds with flaxseed, safflower oil, algae or fish oil lead to more Omega-3 content in the egg yolk. Tweaking the feed recipe leads to other benefits as well. Hens fed canola oil turn out eggs with up to 25 percent less saturated fat. Add a little alfalfa, algae or marigold petal to the feed, and you'll get eggs with extra lutein, a carotenoid that may help prevent macular degeneration. Not surprisingly, hens fed vitamin E turn out eggs with extra vitamin E.

"Designer" eggs cost more (up to twice as much) and may look a little different. "I love the creepy orange-yellow color of the yolks," said Carrie Hubbell Melgarejo, N00. But between white and brown, cage-free and free-range, organic and conventional, she wonders if there might be a few too many varieties in the egg case. "Why can't these types of eggs just be all Omega-3 and free-range?" she asked.

Tomato tribute

For years consumers complained about the hard, thick-skinned and tasteless tomatoes that were sold most of the year in this region, tomatoes grown thousands of miles away, picked green and gassed in transit to produce "ripening" and red color, while achieving little in terms of desirable taste and texture. Walk into a supermarket today, and you'll be hard-pressed to find that box of four smallish, square tomato fruits that filled the shelves just a few years ago.

Now we have a great selection of juicy, tasty and colorful tomatoes, almost year-round. They come from all over. Some are new—like the little bell-shaped cherry varieties—and others are still clustered on tomato vines where they were picked at a riper stage. Yes, they cost more, but clearly fill a real demand.

—Hugh Joseph, N84, N94

SKIM MILK THAT DOESN'T TASTE LIKE WATER

They got rid of the skim milk with the funny blue cast a while ago, but in the last five years, some low-fat and non-fat milks have emerged that actually mimic the color and creaminess of whole or 2 percent milk.

Some milk companies add non-fat milk solids to the mix, a standard practice in California for the past 20 years. Others use newer condensation and filtration technologies to create a richer-tasting but still lower-fat product. "They are essentially pulling some of the water out of the milk, so what's left is more of the good things," explained Sharon Gerdes, a technical support consultant for Dairy Management Inc. Both processes boost the amount of protein and calcium per glass compared to typical milk. As with regular skim milk, vitamins A and D3 are also added.

These technologies are just the latest in a long line of industry efforts to improve the taste and texture of low-fat dairy foods. A quarter century ago, only 14 percent of total milk consumed was low-fat or skim. Today, that number is closer to 65 percent. "Improved skim milk has been around for decades, and the shift in consumption has occurred over a long time, but in terms of measurable dietary impact, it is the one with the most potential for a big effect," said Jeanne Goldberg, G59, N86, a professor at the Friedman School.







Levinson's office is filled with photos of students, colleagues and friends he has made in Asia, Africa and Latin America.

Peace out, Jim

He's a nutrition crusader, spiritual leader, choral master and occasional trespasser. And then there are the weddings... by Julie Flaherty

"OUR JOB IS TO RUB OFF ON THE INDIANS, AND NOT VICE VERSA." IT WAS A futile reprimand, as F. James Levinson's boss at the U.S. Agency for International Development (USAID) in New Delhi probably knew. The recent Harvard graduate was so taken with Indian culture that he was befriend- ing the factory workers he was supposed to be surveying and showing up at the office in homespun khadi cloth that had been popularized by Gandhi. Indeed, so enthusiastic was this Jewish kid from Pittsburgh that the Indians he worked with dubbed him "Labhu Ram."

"It's just a very ordinary name," Levinson explains proudly, "the name a washerman might have."

Levinson is not one to keep people at arm's length: not his research sub- jects, not his colleagues and definitely not his students, many of whom come to know him as a friend. In fact, there is a decent chance that if Jim Levin- son becomes your academic advisor, you will eventually ask him to offici- ate at your wedding.

It is not just that he has been at this mentoring thing for a while, to the point where several current Friedman School faculty members once called him teacher, and he now has his first second-generation student, the daughter of a former protégé. News of his retirement brought an out- pouring of letters and e-mails from alumni around the world, most of them recalling how Levinson's "contagious enthusiasm" and "warm-climate personality" had rubbed off on them.

"One quality that makes Jim a good teacher is his ability to connect with just about everyone, and to connect people to each other," says Anna Her- forth, N05. "He is always saying things like, 'You should meet so-and- so ... you both like Mahler symphonies!' What it boils down to is that Jim doesn't just teach nutrition, monitoring and evaluation, or any other

scholarly subject. At the core, he teaches peace and goodwill."

His character explains a lot about his achievements as a nutrition crusader, improving the quality of life for people, particularly women and children, around the world. Thanks in large part to his efforts, the Bangladesh Integrated Nutrition Project, for example, was perhaps the largest and most effective freestanding nutrition project in the world, dramatically reducing infant and maternal malnutrition and mortality. Not bad for a career that has taken detours for music, chickens and the odd stint in jail.

FROM PITTSBURGH TO INDIA

Levinson grew up in Pittsburgh, where his family owned a steel fabricating company, and later attended Deerfield Academy and Harvard University. But a funny thing hap- pened on the way to law school. As the leader of an a cappella group at Harvard, the musically inclined Levinson embarked on a singing tour of India. He was soon fasci- nated by the country and the teachings of Mahatma Gandhi. Tossing aside his law books, he signed on to walk across India with one of Gandhi's disciples. Sadly, the disciple became ill, and the pilgrimage fell through. So instead, he took the job with USAID, where he sometimes frustrated his bosses with his clothing, but impressed them with his work.

A year later, he was asked to investigate food fortification opportunities as part of USAID's first-ever nutrition project, and his path was set. He spent the next five years fighting malnutrition in the poorest states of India before returning to the United States for graduate school.

In 1972, at just 30 years old, he was invited to head the International Nutrition Plan- ning Program at the Massachusetts Institute of Technology. One of his best skills was attracting bright graduate students to the program, including Beatrice Lorge Rogers, who was then studying at Brandeis. Now a Friedman School professor, Rogers describes phoning MIT's nutrition department to set

up an informational interview, being transferred to Levinson's line, and being swept away. "What are you doing right now?" he asked, and down I came and walked out with a summer job," she recalls.

The emphasis at MIT was on using novel technologies to solve the world's food problems—fortification with algae protein, anyone?—but during Levinson's four years there, his perspective changed. "The more we studied it and the more we learned about it, the more we saw these magic bullets were not what we had thought they were," he says, "and that a lot of the business of combating malnutrition is getting into the villages and increasing the incomes of the poorest families and changing the child care and feeding practices of women."

So Levinson returned to USAID, this time to run its Office of Nutrition in Washington, D.C., where he spent a year as a kid in a candy store. "Jimmy Carter had just been elected president, and with the new administration, in a federal agency, nobody knew for sure what you could do or what you couldn't do," Levinson says. "It was a dream." Together with Larry Minear, who then worked for Lutheran World Relief and now works with Tufts' Feinstein International Center, he drew up plans to assess the consumption effects of agricultural policies and lots more. "We would get together and scheme and plot and strategize and were able to push through most of what we came up with," he says.

But his next job for USAID led to a personal crisis. He was sent to head a food and nutrition operation in Bangladesh, where he began to question both the agency's efficacy and the American government's motives. A stint consulting in the Philippines, where the dictator Ferdinand Marcos enjoyed U.S. backing, left Levinson feeling that he was "on the wrong side."

Disillusioned, Levinson turned his efforts closer to home. He and his wife, Louise Cochran, joined the Catholic Worker movement, living with their children in a community of activists above a soup kitchen in Boston that provided services to the elderly and homeless. Through his commitment to the anti-nuclear movement, he finally had his chance to practice Gandhi's principles of



Levinson poses with children who live in the slums of Dhaka, the capital of Bangladesh. Below, a quote from his daughter reminds him to keep focused.

civil disobedience. A protest at a military laboratory earned him eight days in prison for trespassing. By the end of his sentence, he had thoroughly indoctrinated his cell mate, a car thief, in nukes philosophy.

Levinson and his family also helped establish Noonday Farm, an experiment in communal organic agriculture in north central Massachusetts, where they lived with several other families, poor but content, for 10 years, growing food and raising poultry for soup kitchens and shelters. But by the mid-1980s, Levinson's old colleagues were coaxing him back into nutrition.

"Enough already with the chickens," scolded his friend Abraham Horowitz, then director of the Pan American Health Service. "It's time to go back to the children." And he did, working for the World Bank in Lesotho, Malawi, Ghana, Kenya, Tanzania, Mozambique and Ethiopia.

STUDENTS AS COLLEAGUES

If Levinson is known for caring about his students—sneeze in his classroom, and he quickly produces a zinc lozenge—it may have something to do with his own graduate school experience. He was disgusted

"HOW COME YOU AREN'T TALKING ABOUT THE HUNGRY CHILDREN?"
MIRA

by the way graduate students, particularly international students, "were treated as second-class citizens."

Perhaps it is his radical nature, but since coming to Tufts in 1994 as director of the International Center for Nutrition, he has been quick to lend a hand to students who want to change the Friedman School. It was a student initiative that led to internships becoming such a central feature of the school (he worked hard to secure and fund the opportunities) and a student initiative that led to his course in monitoring and evaluation. "The students knew they needed it, and it didn't exist," Levinson says. "So we went to work on it." Over the last 12 years, the class has developed monitoring and evaluation plans for major projects in India, Bangladesh, Senegal, Egypt, South Africa and the United States.

Early on, Levinson looked for an antidote to the typical, and isolated, doctoral course of study. “The Ph.D. student gets closeted off with some professor to work on something way over on the right side of the decimal point, a miniscule thing where the student would become the world expert on this finite, minute problem... but would not be developing the skills that doctoral students should have in problem solving more generally.”

That led to the creation of the Ph.D. seminar, in which doctoral candidates join a roundtable with faculty and each other, sharing their projects and roadblocks.

Many students cite Levinson as the force that drew them to the Friedman School.

Laura Rowe, N07, remembers that Levinson was out of the country when she came to tour the school, but he insisted she use his office phone to call him. “I was convinced that I had to come to Tufts if for no other reason than to have a class with this dynamic and energetic professor who was so willing to talk with a prospective student,” she says.

When she first joined the Friedman School faculty, Assistant Professor Ruth Palombo saw that despite the constant stream of students in and out of his office, Levinson managed to make each feel like he had all the time in the world to listen. And he does listen. Palombo observed Levinson’s standing-room-only class in international nutrition, where he remembered not only the students’ names but their distinctive experiences.

“He would turn to a student and say, ‘What we’re talking about is so similar to micronutrient work you did in India’ or ‘Can you talk to us a bit about what you did with positive deviance in Africa?’ And the student would glow. When you’re sitting in class and someone is remembering something that you uniquely did, you shine.”

LIVING IN HARMONY

Levinson never abandoned his love of music, instead taking it with him on his travels. Over the years, he has conducted the Delhi Symphony Orchestra, directed a program of South African liberation music for Nelson Mandela and given a series of piano recitals

around India for the U.S. Information Service. (Ask him some time about performing Ravel in Trivandrum while the back leg of the decaying piano was giving way.) In the 1980s, he took a break from nutrition and spent a year in a master’s program in choral conducting at the New England Conservatory of Music. Friedman students get a taste of his skills at orientation, when they suddenly find themselves being led in a four-part

have lighter complexions—and we never had any trouble again.”

He also gets some raised eyebrows from immigration officers when he passes through Israel. “What were you doing in Pakistan, Iran, Egypt, Indonesia?” they ask, looking at his passport.

Yet spirituality has been a constant in his life, and some years back, when a young rabbi offered to teach him in the oral tradi-

Levinson managed to make each feel like he had all the time in the world to listen. And he does listen.

choral rendition of “Frère Jacques,” “Three Blind Mice,” “Row, Row, Row Your Boat” and “Swing Low, Sweet Chariot.”

In Bangladesh, he and his wife befriended a group of singers, offering to teach the group four-part harmony in exchange for being taught the Bangla songs of Rabinadrath Tagore. One day, the singers stopped showing up for their weekly gatherings. Only later, when Levinson cornered one of them in the street, did he learn what happened: “He told me, ‘We had many meetings about the two of you, and we finally decided that any Americans who were not living in the American compound, who were speaking the language and who were interested in the likes of us, had to be CIA.’”

Yet very little about him is covert. When traveling in Pakistan, colleagues advised him to keep mum about his Jewish faith, to avoid any friction. He didn’t comply, of course, (“I have to be who I am,” he says) and inevitably struck up terrific conversations with Pakistani Muslims that went well into the night.

But he did give in to a similar plea when he was touring salt works and Hindu temples in India. He was welcomed at the former, but forbidden to enter the inner sancta of the latter, so his hosts stripped off his shirt and put a traditional lungi around his waist. “I was not allowed to say a word, and if anyone asked a question, my colleagues would identify me as a deaf-mute Kashmiri—Kashmiris tended to

tion, Levinson, who is descended from 14 generations of rabbis and cantors, decided it was time to follow his genes. Within a year, Levinson was leading services. He has been leading congregations for 18 years, the last five as the Sh’liach Tzibur, or spiritual leader, for the Brattleboro Area Jewish Community. When he retires from Tufts, he will direct many of his energies there.

And then, of course, there are the weddings. He officiated at his 13th graduate student nuptials last summer.

Not surprisingly, all three of Levinson’s children have devoted their careers to public health. His daughter, Mira, is an evaluation and data management consultant for domestic HIV/AIDS and substance abuse programs. His son, Noah, started an organization that helps children in the slums of Calcutta. His daughter, Dora, is pursuing her master’s in public health at Tufts. She was the one who suggested they return to the Indian villages Levinson had studied in the 1970s to see what had changed in 30 years.

“In 1971, 69 percent of young girls were undernourished; now it’s down to 17 percent,” he says. “Literacy is up fourfold. Before, when asked why a child was severely malnourished, more than half would say it’s because an evil spirit cast a shadow. Today, none say that.”

Asked if he felt his work had made the difference, his eye twinkles. “We certainly made a lot of noise,” he says.



doctorate in statistics from Yale. He came to Tufts in 1982 as a visiting assistant professor in the math department. Today he serves as chief of the Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA) Biostatistics Unit and as a Friedman School professor.

He uses examples in class that are taken from actual nutrition research. Using generic problems from a statistics book would be pointless. "This is exciting stuff, this is vital stuff, and you're talking about the fraction of red M&Ms in a bag of M&Ms?" he asks. "In an applied field, people care about what goes on the rows and in the columns."

He gives students what they will need to do their jobs. "I'm not teaching them everything, but I'm giving them the basic skills set so they can begin to analyze their own data in certain situations, which I hope they recognize," he says. "And I hope they also recognize when it's time to call in help."

To that end, alumni from all over the world send him e-mails that usually begin "You may not remember me" (he does, of course), and then "Can I ask you a question?" Last year, Gwenola Desplats, N04, wrote to Dallal from Niger, where she was consulting for UNICEF. She was desperate for help with a sticky data problem. "I wish Jerry was not such a good teacher. Instead of giving me straight answers, he made me think about my own questions," she says. "From that discussion, I realized that my logistic regression question was, in fact, a survey design problem. He saved me from huge embarrassment, and the paper is now in the process of being revised for publication."

Now that the Friedman School has grown, and assistant professors Parke Wilde and Raymond Hyatt have taken over some of the statistics classes, Dallal has been teaching mostly aspiring bench scientists and epidemiologists, students who are braced to work with numbers.

"But the social science students will always have a soft spot in my heart," he says. "They are the ones who don't know quite what they are getting into. And when I see the light go on in their eyes, and I realize I've shown them something that is going to affect what they do with their careers, that has always been an exciting part."

Statistically speaking

Jerry Dallal eases students through the trials of tabulation

by Julie Flaherty

EACH YEAR, STUDENTS ENROLL AT the Friedman School of Nutrition Science and Policy hoping to one day feed the world's hungry, cure diabetes or start an agricultural revolution. Spending long hours crunching numbers is usually not part of the picture.

"They don't come in expecting to be trained in statistics," says Prof. Gerard Dallal. "I think it's a shock when they see how seriously the school takes it. They don't appreciate how important it is to them until later."

Jerry Dallal has been the school's primary source of statistical comprehension for almost 24 years. Indeed, up until a few years ago, most every student who passed through the Friedman School had to take his class. Dallal

will tell you that's the reason—a mere computation of number of students served and years at the school—that he recently received the Friedman School's Distinguished Faculty Award. But in this case, stats don't tell the whole story.

Turning numerical dread into statistical confidence is Dallal's specialty. He once overheard a student complain, "This course is a complete waste of time. I don't know why I'm taking this," only to have the same student come back a year later, and ask, "Can I be your teaching assistant?"

Maybe he got it from his father, an internal auditor at an insurance company, or from his mother, a statistical typist, but Dallal was always good at math, eventually earning a

Peer to peer

NUTRITION SCIENCE AND POLICY STUDENTS from several universities had the rare opportunity to present their work and meet their peers at a graduate research conference the Friedman School hosted in March. The conference, “The Future of Food and Nutrition,” was the brainchild of Chris Hillbruner, N07, and Christine McDonald, N07.

“I knew a lot of students were doing interesting work but had no way to share it,” Hillbruner said. “I thought this would be a great way for nutrition students to connect.”

Twenty-nine student researchers from across the country presented their work during nine faculty-moderated sessions, and another 25 submitted posters. The sessions covered broad topics such as agriculture in developing countries, food insecurity and behavior, antioxidants, and nutrition assessment and planning. “I thought we got a really good balance between science and policy in the sessions,” McDonald said.

For example, during the session on “Obesity: Science and Policy,” Latrice Goosby, A02, N04, a Ph.D. student in nutritional epidemiology at the Friedman School, presented her work on the heritability of lipid profiles among African-Americans. Her work uses data from the Jackson Heart Study, a Mississippi-based epidemiological study modeled on the Framingham Heart Study. NYU nutrition student Amy Gelfand reported on a pilot study incorporating obesity prevention into well-child visits at Bellevue Pediatric Clinic. Samantha Snyder, a student of agricultural economics at Perdue, shared her preliminary data linking Body Mass Index to access to supermarkets. To wrap up, Cornell student Alexandra Lewin presented her research on congressional politics and childhood obesity policy.

“Thank you all for bringing us from the bench to national politics,” said panel moderator Christina Economos, N96, holder of the New Balance Chair in Childhood Nutrition at the Friedman School. “It really

underscores how we, as scientists, can address this problem and coordinate a response.”

During the session on culture and food, Stephanie Bostic, N08, spoke on the culinary influence of French colonization on Morocco, Vietnam and Guadeloupe. Bostic toured



Clockwise from upper left: Meaghan Murphy, N07; PhD candidate Makiko Yoshida; Academic Dean Patrick Webb; and students from Cornell, Clark and Tufts universities.

the three former colonies of France, where she took cooking classes and conducted interviews with local chefs and market vendors. Bostic concluded that social customs and climate play the largest role in how quickly—if at all—new ingredients, recipes or techniques get incorporated into local cuisines. For Bostic, the student conference was the first opportunity she had to present her project outside of the classroom.

“It was a challenge compressing two years of research and writing into the short time period, and I definitely learned from the experience,” Bostic said.

Increasing students’ confidence in their presentation skills was another goal Hill-

bruner and McDonald had in mind for the conference. “This is a stepping stone to professional conferences,” McDonald said. “Ideally, we’ll provide more training to increase people’s confidence in their presenting skills.”

Friedman School Dean Eileen Kennedy moderated a multidisciplinary panel of experts who discussed the potential for

farming technologies and techniques that increase food yields per acre to address hunger in Africa. Some have called for a second Green Revolution, a revisiting of the efforts that transformed agriculture in many developing nations in the mid-1900s.

Mary Keyes, N07, was honored for her poster, “Folate and age affect methylation in the mouse colon,” and Priya Bhagowalia, a student at Perdue, for her talk on the distribution of nutritional status across countries over time.

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

In a lyrical weekend, the Granoff Music Center makes its debut by Helene Ragovin

Site to be heard

IT WILL NOT BE ENOUGH TO SEE THE NEWEST BUILDING ON TUFTS University's Medford/Somerville campus. The Perry and Marty Granoff Music Center was made to be heard.

From the classrooms, practice rooms and rehearsal spaces to—most significantly—the 300-seat recital hall, the building was designed with exquisite attention to acoustical detail. The new music center allows Tufts students and faculty, along with the wider community, to learn, teach, create, perform and enjoy music in a way that previously has not been possible on campus.

The new facility also is expected to raise the academic profile of the music department, which has been hampered by lack of space and adequate facilities—although not by lack of talent and commitment.

"I think [Tufts] should be one of the most attractive schools on the East Coast for students who are interested in music in a liberal arts environment," said Joseph Auner, professor and chair of music. "Tufts gets a lot of people applying who are interested in music, but I think we expect to be able to recruit many more talented musicians, both music majors and non-majors."

"I feel inspired, reinvigorated, about coming to teach, compose and perform" in the Granoff Center, said John McDonald, associate professor of music. "For the graduate and undergraduate student composers who work with me, we can now provide the very best facility and equipment for performing and recording their efforts."

The 55,000-square-foot music center is named for trustee Martin Granoff and Perry Granoff, A91P. It is located on the corner of Talbot and College avenues on the Medford/Somerville campus and was dedicated during a weekend of celebratory events in February.

The crown jewel of the \$27 million building is the Distler Performance Hall, an acoustically separate "box-within-a-box" that was designed by architects Perkins + Will of Boston to be a showcase for live acoustic performances.

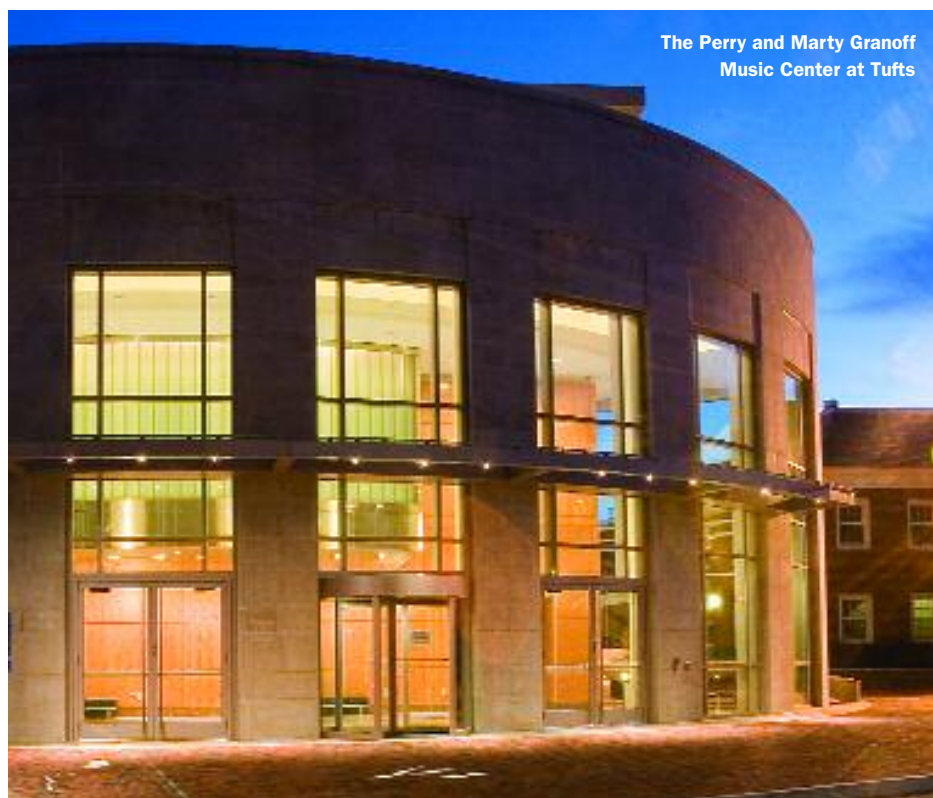
"I think it's the best small recital hall in the Boston area," Auner said as he bounded onto the low stage and waved his arm toward the 40-foot ceiling. "It's going to be wonderful for student recitals, for the various ensembles and chamber music. This is a big, resonant space ... it keeps the sound alive. There's not a bad seat in the house," he said.

The hall is "acoustically sealed"—meaning sounds from without will not interfere with performances, and sounds from within will not interrupt teaching or other functions elsewhere in the building. Even the ventilation and lighting systems have been designed to be silent—no humming, no buzzing, no blowing. "It's a very quiet space, so it'll be possible to play very quietly and delicately in here," Auner said.

The recital hall is a gift of Arts & Sciences overseer Stephen Distler, A74, and Dr. Roxanne E. Kendall, J75. The Karl Leichtman Performance Stage was a gift of trustee Agnes Varis, H03. And the Steinway concert grand piano—"probably the best piano in New England," Auner said—was donated by President Lawrence S. Bacow and Adele Fleet Bacow in honor of their parents, Ruth and Mitchell Bacow and Margaret and Joel Fleet, M.D.

"Music is all about sound," said Provost and Senior Vice President Jamshed Bharucha. "Most architectural projects are focused on the visual. It's very important that we get the acoustics right, and certainly a tremendous amount of attention has gone into every little detail acoustically. You can hear it in the classrooms, in the studios and in the concert hall."

The concert grand in the recital hall is one of 12 new Steinway pianos that were purchased for the new building, along with eight



The Perry and Marty Granoff Music Center at Tufts

Yamaha pianos. “We are buying a lot of instruments,” said Auner. “We also bought a lot of percussion instruments and jazz instruments—electronic keyboards. Also, we bought a lot of world music instruments. In addition to our traditional strengths in African drumming and gamelan, for the first time we’re offering lessons in a range of traditions, including Japanese and Indian and Middle Eastern music.”

A separate room on the lower level is devoted to the world music collection, housing the West African drums used by Associate Professor David Locke’s Kiniwe West African Drum and Dance Ensemble and the Javanese gamelan, a collection of percussion and other instruments native to Indonesia.

MUSICALLY MINDED STUDENTS

The Kiniwe and gamelan ensembles are two of more than 15 student ensembles directed by music department faculty. “Many, many students are involved in music at Tufts,” Auner said.

About 1,500 students participate in music classes each year. During the 2005-06 academic year, there were 2,000 course enrollments in the department, Auner said—an impressive number at a university with a student body of 4,500 undergraduates, he added.

Interest in musical performance also has been growing steadily. In 2000, the music department staged between 60 and 65 events a year; last year, it staged 106, said events manager Ryan Saunders. Yet, for several decades, the music faculty and students had to contend with cramped quarters that were not properly sound-proofed and were often at the mercy of the elements; instruments aged faster than they should have because of inadequate climate control.

“It’s a testament to just how strong and vibrant our department is that they have been able to accomplish so much in such limited circumstances,” said Bharucha, a musician and psychologist who studies how our brains perceive music and has published widely on the topic.

Most of the performances in the Grannoff Center are free and open to the public. For a schedule of upcoming events, go to www.tufts.edu/musiccenter.

ALBRIGHT PUSHES POLITICAL SOLUTION FOR IRAQ

“THERE IS A VITAL DIFFERENCE BETWEEN COMPETENCE AND CERTAINTY,” FORMER SECRETARY OF State Madeleine K. Albright told a Tufts audience during the 2007 Issam M. Fares Lecture. “A competent leader will reconsider views on the basis of new information. A morally certain leader will reject any advice that is not in accord with what he or she already thinks.”

And now that it has become clear that “our leaders made a terrible choice” in pursuing the U.S. invasion of Iraq, she said, those in power need to be willing to review their options anew; to look for a political solution to the situation in Iraq;



Madeleine K. Albright

to avoid another military incursion, this time in Iran, and not to take sides in the split between Sunni and Shi’ite Muslims and other disputes in the region.

“None of us should be so sure we’re right that we close our minds to the possibility that on some matters, at least, we’re wrong,” Albright said. “It’s always tempting, especially for Americans, to attach labels to people, groups and even nations, and to say that here are the good guys, and there are the bad. Life is generally more complicated than that. Good and evil generally don’t come in separate packages.”

Albright delivered the lecture on March 7 on Tufts’ Medford/Somerville campus. The Fares Lecture is supported by an endowment from the Fares Foundation and is named in honor of Issam M. Fares, the former deputy prime minister of Lebanon and a trustee *emeritus* of the university.

Albright, who was appointed the first woman U.S. secretary of state in 1997, began her speech by referring to a previous Fares Lecture speaker, former President George H.W. Bush, who delivered a talk in 2003 titled “Choose Hope Over Hate.” “What I found most interesting about that speech is that it took place only three weeks before the U.S. invasion of Iraq,” Albright said. “Instead of using his lecture to make the case for invasion, the former president stressed the wisdom of the choice he had made when in office not to invade.

“There are lessons in this,” she said. “The first is that young people should listen to their parents,” a comment that was met with applause from the audience. “The second is that before making decisions that will affect our future, leaders should study carefully the lessons of the past.”

The time has now passed, she said, for debate over the wisdom of military involvement in Iraq. “That argument has been settled. Our leaders made a terrible choice. The question is what can be salvaged?”

While most of her speech was critical of the Middle East policies of the current Bush administration, Albright did cite some areas of agreement—and some caveats. “I agree with the president that it would be a disaster to leave Iraq under present circumstances, but it may also be a disaster for us to stay,” she said. “If our troops are not in a position to make a decisive difference, we have an overriding duty to bring them home sooner rather than later.”

The answer to Iraq lies in political, not military, means, she said. “An arrangement must be worked out that will give each side more than they can obtain through continued violence.”

—Helene Ragovin

Fund-raising effort is part of university's historic \$1.2 billion campaign

A \$50 million goal

THE GERALD J. AND DOROTHY R. FRIEDMAN SCHOOL OF NUTRITION Science and Policy has embarked on a \$50 million fund-raising endeavor as part of the university's *Beyond Boundaries: The Campaign for Tufts*.

Beyond Boundaries, which officially launched last November, will target key priorities across the university, including financial aid, endowed professorships, new research facilities and initiatives in citizenship and public service.

Some 60 percent of the campaign is anticipated to support the Tufts endowment. The financial bedrock of the university, the endowment ensures stability and fuels strategic growth. Similarly, at the Friedman School, strengthening the school's endowment is a top priority because it allows the school to achieve critical academic and research priorities not covered by tuition, such as resources for financial aid and endowed professorships.

"The Friedman School of Nutrition Science and Policy has the breadth of expertise to address the complexity of nutrition in our modern world,"

Dean Eileen Kennedy said. "Our faculty, our students and our graduates are key players in solving issues as diverse as famine and successful aging. But if we are to achieve our potential, if we are to truly integrate science with policy and real-world action, we must build true, lasting excellence."

THE CAMPAIGN FOCUSES ON FOUR KEY AREAS

Financial aid. A significant portion of the campaign goal—\$29 million—is earmarked for student financial aid. The future of the Friedman School relies heavily on the caliber of its students, and yet the competition for top-tier students has never been greater. The



school's ability to offer competitive financial aid packages will ensure that we can compete with our sister institutions for the very best students, and that they graduate without a heavy debt load.

Building excellence in teaching and research.

The school seeks a total of \$21 million to bolster teaching and research priorities. In the coming years, the school will experience significant turnover in current senior faculty members. In order to help attract top-level faculty, Tufts University's Board of Trustees has approved the first, tenure-track faculty position at the school. This goal includes:

Endowed professorships (new): New endowed professorships will strengthen faculty recruitment by offering and guaranteeing financial stability for the life of the appointment. Planned endowed professorships, totaling \$9 million, include nutritional biochemistry and/or epidemiology; food and nutrition policy; and behavioral nutrition. These professorships parallel the priority areas of nutrition science, food policy and communications/behavior translational research.

Endowed professorships (existing): The continued viability of the Friedman School relies on a collaborative, stable relationship with the Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA). A \$3 million endowment will be used to guarantee salary support for core HNRCA faculty—key scientists who provide most of the academic instruction and laboratory training in biological sciences and epidemiology for our students.

Endowed junior career development chairs: In addition to senior-level positions, the school seeks to raise \$3 million to attract some key junior faculty who have the potential to grow and contribute to school leadership. Assistant professors are

Friedman School of Nutrition Science and Policy student Latrice Goosby A02, N04, teaches a biostatistics class in the Sackler library.

A NEW WAY TO SUPPORT THE UNIVERSITY YOU LOVE

ARE YOU 70½ YEARS OF AGE OR OLDER? ARE YOU REQUIRED TO TAKE DISTRIBUTIONS from your IRA (Individual Retirement Account) that you don't need?

Until December 31, 2007, you can make a donation to the Friedman School of Nutrition Science and Policy at Tufts University by directly transferring money from your IRA, tax free.

The Pension Protection Act of 2006 allows individuals with traditional or Roth IRAs to make tax-free charitable distributions in any amount up to \$100,000 per year.

To make your gift and for more information, please visit www.tufts.edu/giftplanning, or contact the Gift Planning Office by phone at 1.888.PGTufts or by e-mail at giftplanning@tufts.edu.

Please note that this information is not intended as legal advice, so please consult with your tax advisor if you are considering this type of gift. Restrictions may exist.

particularly needed in areas such as epidemiology, nutrition science and nutrition communication.

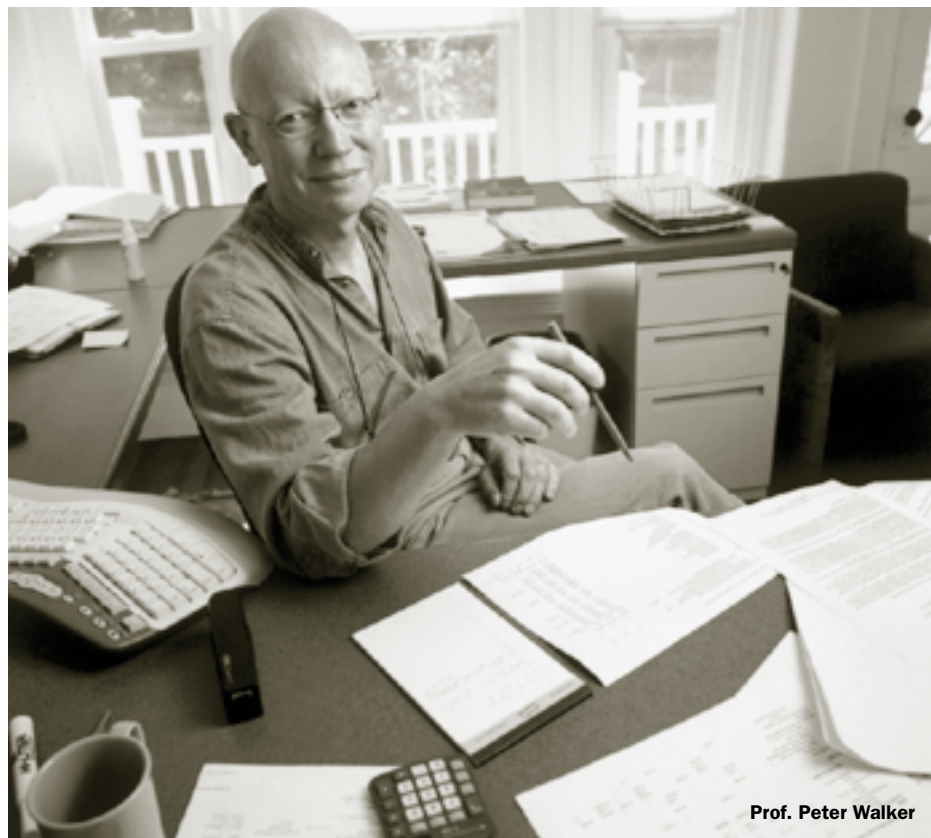
Research support. The Friedman School is well placed within the university family to build strong collaborative approaches to solving complex societal problems. Through *Beyond Boundaries*, the school aims to raise \$6 million in endowment funds to generate seed money and support to provide intellectual and financial incentives for multidisciplinary, cross-school research partnerships.

Friedman Nutrition Fund. The school's annual fund goal of \$3.2 million affirms the importance of annual giving as a vital, ongoing source of support. As a young school with a dedicated but small alumni base, we encourage and deeply appreciate participation from our alumni and friends at all levels and welcome multi-year commitments. As part of the capital campaign, the school will increase outreach to new friends for support to

markedly expand the school's base of support.

During the campaign's quiet phase, from July 2002 to November 2006, the university enjoyed record-setting philanthropy. Some of the recent key gifts to the Friedman School included significant grants from the John Hancock Foundation, the New Balance Foundation, the Leir Foundation and the Bill and Melinda Gates Foundation. Another major gift was from the Gerald J. and Dorothy R. Friedman NY Foundation for Medical Research to endow the Gerald J. Friedman Fellows in Nutrition and Citizenship. In addition, Edward Budd, Friedman School overseer and university trustee *emeritus*, issued a \$1.5 million challenge for new gifts to the school's endowment that is still ongoing. These are just a few of the significant gifts given during the campaign so far.

To learn more about *Beyond Boundaries: The Campaign for Tufts*, and how it will impact the Friedman School and the university, visit www.tufts.edu/giving.



Prof. Peter Walker

Global Platform

Rosenberg Professorship designed to put research into action by Mark Sullivan

NO MORE IVORY TOWER. THAT'S THE MESSAGE UNDERLYING THE NEW Irwin H. Rosenberg Professorship in Nutrition and Human Security, says its holder, Professor Peter Walker, director of the Feinstein International Center at the Friedman School.

"The professorship sends a powerful signal that Tufts stands behind the sort of active research we do in crisis and conflict areas around the world," Walker said. "The whole drive here is to do the research and then put it into action—to change things, not just write about them."

Named for former Friedman School Dean Irwin H. Rosenberg, the professorship is conferred upon the director of the Feinstein International Center, which is devoted to field-based research to benefit communities beset by famine, war or other humanitarian crises.

Walker was installed as the Rosenberg Professor last November. More than \$2 million raised through private philanthropy established the professorship, with the Andrew W. Mellon Foundation pledging half the total.

Rosenberg said the translation of scientific knowledge to field application has been an approach long associated with Tufts, particularly since the time of former university president and Friedman School founder Jean Mayer, whom he described as a "champion and voice for the movement for freedom from hunger."

Rosenberg, now a University Professor, also holds the Jean Mayer Professorship in Nutrition. It was Mayer who encouraged Rosenberg, a physician by training, to embark on his first experience in international nutrition, leading to study and intervention in malnutrition and famine in Bangladesh. During Rosenberg's nine-year tenure as dean, the Feinstein International Center was founded as a center devoted to the study and alleviation of famine in the world.

"Needless to say, I am deeply grateful to be associated with this professorship," Rosenberg said in remarks at Walker's installation in November. "Nothing could be a higher honor, but this named professorship goes far beyond recognition of any individual contribution to the essential fusion of human nutrition and human security. This professorship recognizes the long commitment of this university to the concept of humanitarian rights, freedom from hunger, starvation and disease."

Eileen Kennedy, dean of the Friedman School, said: "The Rosenberg Professorship is a tribute to the tireless efforts of the former dean in enhancing the scientific and academic excellence of the school. The professorship is a prime example of what I call 'beyond discovery.' Dr. Walker's scholarship has linked cutting-edge research and knowledge to action. I could not think of a more appropriate person to hold the Rosenberg Professorship."

Walker described the professorship as a platform for the "participatory research" to which he and the school are dedicated. "Our research requires us to get involved," Walker said. "We need to have a dialogue with people, to understand their perspective of what's going on."

In Somerville, he said, this approach can mean working with local residents to make school lunches more nutritious; in Uganda this can involve negotiating a working relationship between the tribal justice system and U.N. peace tribunals.

"We ask people, how do things work in this place? Then we find the levers we can touch to make things change," Walker said.

Walker's inaugural address as Rosenberg Professor is available online at <http://fic.tufts.edu/downloads/RosenbergProfaddress.pdf>.

Alumni Association continues to grow

IT'S HARD TO BELIEVE, BUT THE FRIEDMAN School Alumni Association is three years old. In such a short time, we've kicked off many new programs and initiatives that, I hope, are making a difference in the lives of the school's graduates and students.

As your new Alumni Association president, I must thank our outgoing and founding president, Elizabeth Cochary Gross, who has done so much to launch this organization and help the school. Liz, I'm proud to be following in your footsteps!

Over the course of this year alone, we've held multiple career panels, several alumni-student networking events, receptions at major meetings and yet another spectacular All-Alumni Reunion. More than 60 graduates are now volunteers, willing to offer career advice to alumni and students through the Tufts Career Advisory Network (<http://careers.tufts.edu/alumni/network>). Many others will be working with our admissions office on a new project to assist prospective students.

Members of the Alumni Association's Executive Council have also been reaching out to graduates like you to talk about the university's *Beyond Boundaries* capital campaign and to ask for your gift to the Friedman School's annual fund to provide much-needed assistance for priorities such as student financial aid. In the spring of 2006, the Executive Council also held a board retreat to think about its goals and activities for this year and the future. I think we have created a road map that will help our alumni reconnect with one another and the school, as well as provide terrific programs for networking, philanthropy and career building.

While our momentum is great, the possibilities are endless as to how we can support alumni as well as help the school achieve

its mission. Have an idea about an event or program? Want to volunteer? Are you interested in attending an upcoming event? Please contact Cindy Briggs Tobin in the Office of Development and Alumni Relations at 617.636.0962 or send an e-mail to cindy.briggs@tufts.edu. Another great resource is the school's Web site, <http://nutrition.tufts.edu>, which has event listings and photos, information on benefits and services graduates can receive from the university, the latest research news and more.

In three short years, we have come a long way in building a strong alumni community. I look forward to working with you and hope to see you at an upcoming event!

With warm wishes,
SUZANNE DORFMAN, J98, N00, N05
PRESIDENT, FRIEDMAN SCHOOL
ALUMNI ASSOCIATION

MEET SUZANNE



- A "triple-Jumbo" who received her bachelor's degree in biology from Tufts in 1998, a master's in nutritional biochemistry from the Friedman School in 2000 and a doctorate in nutritional biochemistry in 2005.
- Currently a pharmacology lab leader in diabetes and metabolism at the Novartis Institutes for BioMedical Research in Cambridge, Mass.



FRIENDS COAST TO COAST

1 Overseer Lloyd Greig and his wife, Sally, hosted a talk at their home in Beverly Hills by Peter Walker, director of the Feinstein International Center. Pictured are the Greigs and guest Elon Gunning.

2 Alison Robbins (right) held an event in Boca Raton to introduce new friends to the Friedman School. Christina Economos, N96, the New Balance Chair in Childhood Nutrition, spoke on "Nutrition and Healthy Lifestyle Choices."

N83 Susan Holman was invited to be a visiting scholar at the Institute for Advanced Studies at Hebrew University in Jerusalem during the winter of 2007 as a part of its research group “Piety and Charity in the Late Antique Mediterranean World.”

N84 Hugh Joseph, N94, founding director of the New Entry Sustainable Farming Project, was featured in an August 2006 *Boston Globe* article about the project, which helps immigrants use their farming backgrounds to become commercial farmers in this country. About 40 farmers from Laos, Cambodia and a half-dozen African countries currently participate in the three-year training program at farms in Dracut and Sutton, Mass.

Marguerite Klein and Frances Stern Nutrition Center Director Johanna Dwyer co-chaired a session on research needs at the Drug Information Association’s Conference on Probiotics in October 2006.

N85 Madeline Dalton, N94, delivered the commencement address May 12 at Alfred University, where she earned her undergraduate degree in biology in 1983. The university also awarded her an honorary doctor of science degree. She is a nutritional epidemiologist and associate professor of pediatrics at Dartmouth Medical School. In research funded by the National Cancer Institute, Dalton found that seeing people smoke in the movies influences teens’ decision to smoke. The Cancer Institute is also funding a follow-up study

that will evaluate the influence of movies on adolescent smoking behavior and identify parental factors that might modify the association between exposure to smoking in the movies and adolescent smoking. In other research, funded by the National Institute of Environmental Health Sciences and the Robert Wood Johnson Foundation, Dalton is evaluating the environmental and family influences on the nation’s childhood obesity epidemic. In 2006, Dalton received the Alfred University Alumni Association’s Distinguished Achievement Award.

N86 Alice Shapiro shares that the “WINS Study” is finally finished and was published in the December 2006 issue of the *Journal of the National Cancer Institute*. She notes, “Lots of

great nutritionists worked on it for 10 years!”

N87 Brenda Braaten hosted Pacific Crest Trail hikers this past summer at her home in California, offering nutrition and trail survival advice.

N92 Xiang-Dong Wang, director of the Nutrition and Cancer Biology Laboratory at the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts, has been appointed an honored visiting professor at Sun Yat-Sen University in Guangzhou, China. He spoke on “Carotenoids, Vitamin A and Cancer Prevention” at that university’s 30th anniversary ceremony. He also spoke on “Smoking, Alcohol and Vitamin A” at the American Institute for Cancer Research’s International Research

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Conference on Food, Nutrition and Cancer in July 2006 in Washington, D.C. In addition, he discussed "Carotenoid Oxidative Metabolites: Implications for Cancer Prevention" at the International Society for Free Radical Research's 13th Biennial Congress in August 2006 in Davos, Switzerland. He also gave a talk on "Alcohol, Retinoids and Hepatocellular Cancer" at the International Society for Biomedical Research on Alcoholism 2006 World Congress last September in Sydney, Australia.

N94 Madeline Dalton, see N85.
Hugh Joseph, see N84.

N95 Angela Nell Stuart was the spring 2006 theme editor of *On the Cutting Edge*, a peer-reviewed journal of the Diabetes Care and Practice Group of the American Dietetic Association.

N97 Jennifer Hellwig and **Jennifer Otten,** N98, both alumnae of the Nutrition Communication Program, are co-editors, along with Linda Meyers, of the new report, "Definitive Summary of Nutrient Reference Values for Healthy People," a publication that debuted at the 2006 American Dietetic Association annual conference. Otten also notes that she is working toward a doctorate at the University of Vermont.

Heather Rafferty and her husband, John, are expecting their first child this spring. Heather recently celebrated her fifth anniversary as the director of brand and marketing services at the Culinary Institute of America (CIA) in Hyde Park, NY.

In this role, Heather oversees the college's brand and licensing programs as well as the CIA's marketing service departments, including communications, creative services, special events, hospitality and Web marketing.

N98 Claire MacEvilly has married Chris Kitteringham and is the communications manager for the Medical Research Council in Cambridge, UK.
Jennifer Otten, see N97.

N99 Shara Aaron reports that she will be moving to Yardley, Pa., in June.

Jenna Hollenstein's first book, *Understanding Dietary Supplements*, is scheduled to be published in May 2007. It is a how-to book for evaluating and understanding vitamin, mineral, herbal and botanical dietary supplements.

N01 Congratulations to **Holly Freishtat** and **Aimee Witteman,** N06. They were both awarded Food and Agricultural Sciences National Needs Graduate and Postgraduate Fellowship Grants. Since 1984, the program has provided training for nearly 1,200 students, with more than 500 graduated USDA fellows making contributions in a variety of organizations.

N02 Kim Dong still has a private practice, SNAP (Smart Nutrition Application and Practice), with two fellow Friedman alums, **Kendrin Sonnevile** and **Vanessa Cavallaro,** N03. They are based in the Boston area.

Hind Merheb Khodr is the

clinical coordinator for the School for Health Studies at Simmons College.

Eileen (Socorso) Teschke married Jeffrey Teschke in October 2005. They live in Center Valley, Pa. Eileen has worked at Merck since graduation. She has been promoted from diabetes research to medical education for vaccines, including the new cervical cancer vaccine.

N03 Vanessa Cavallaro, see N02.

Jennifer Nichols married Jamie Bogumil on August 12, 2006, in Mystic, Conn.

Abby Usen is back at Tufts-New England Medical Center, working as an R.D. in both the Pediatric Gastroenterology and Nutrition Clinic and the Metabolism Center.

N04 Laurie Barenblat teamed with personal trainer James Johnson in July 2006 to start Curbside Fitness. They offer in-home personal training and nutrition education to help their clients transition to a healthier lifestyle.

Kristine Shedd writes, "I'm getting married in June 2007!"

IN SEARCH OF...

AS MUCH AS WE TRY TO KEEP IN touch with graduates, sometimes we lose track. Have you heard from any of these alumni? Let them know we miss them and would like to add them to the magazine mailing list. Send them to <http://nutrition.tufts.edu/alumni>.

Mohammed A. Al-Saif, N96
Young-Shin Ahn, N93
Nkiabungu Bikangi, N86, N87
Jeanine Comeau, N99
Suratha Cumaresan, N93
Andrea Dazzi, N83
Roberta Dworkin, N84
Sulima Abdel Haliem Elballa Rhman, N04, F04
Nahimana Gitebo, N88
Lori Hennessy, N89
Hongmei Li, N93
Chun-Yin Huang, N02
Winona Lawrence, G52
Barbara Martin, G70
Robyn Meizlish, N84
Fazal Najimi, N03, F03
Catherine Newton, N03, F03
George Were, N02, F02
Ameca Ellis Park, N01
Jonathan Thrasher, N90

WE WANT TO HEAR FROM YOU!

Have a new job? Is your family growing? A special project or appointment? Getting together with classmates? Keep your fellow alumni posted by dropping us a line.

Send to:

Cindy Briggs Tobin
Director of Development and Alumni Relations
136 Harrison Avenue
Boston, MA 02111
or go online to nutrition.tufts.edu/alumni

CLASS NOTES DEADLINE FOR NEXT ISSUE IS SEPTEMBER 1, 2007

RENAISSANCE MAN TAUGHT WITH HUMOR, CREATIVITY

Richard G. Bell, a consumer researcher in nutritional and behavioral epidemiology at the U.S. Army Soldier Systems Center in Natick, Mass., and an adjunct professor at the Friedman School, died of cancer on February 8, 2007, at Exeter Hospital in New Hampshire. He was 48.

At Tufts and the Harvard School of Public Health, where he also taught, Bell was known for his ability to engage his students with humor and his unique style of pedagogy.

"Rick would be teaching a course on 'Theoretical Models for Health and Nutrition Behaviors'—a subject that has the potential to be rather dull—and have his students on the edge of their chairs laughing," said Jeanne Goldberg, G59, N86, a professor at the Friedman School. "He was just incredibly creative, totally out of the box."

In one class, for example, he used the Beatles' song "Hey Jude" to demonstrate the possibilities for getting individuals to change their behavior. At first, few students would sing with him. By the end, everyone was participating and having fun at the same time.

"This would seem to have nothing to do with nutrition and health," Goldberg said, "but in reality, it has everything to do with it. Rick got the best out of his students."

Performing came naturally for this Renaissance man. Bell, who preferred to be called Rick, was born in Belleville, N.J., to Sidney and Rita (Stein). In high school, he taught himself to play the piano by listening to Billy Joel songs and trying to duplicate them. He played in the high school band and at coffeehouses while he attended Brandeis University. After graduating in 1980 with a bachelor's degree in economics, Bell, who had a beautiful tenor voice, performed in musical theater on Cape Cod, toured with a children's theater company in California and acted with the Green Mountain Guild in Vermont.

He wrote a musical, "Tempest in the Teapot," which was performed in the Boston area in 1994, and at the time of his death, was composing the music for another musical, titled "100 Percent Lucille."



Bell was an accomplished athlete from a young age. The first baseman was the leading hitter at his high school and considered a slew of college offers before deciding to study economics.

Bell earned a master's degree in nutrition from New York

University in 1987 and a doctorate from the Harvard School of Public Health in 1999. While pursuing his master's degree, Bell worked as a sensory scientist at Thomas J. Lipton Inc. in Englewood Cliffs, N.J., and later as a research scientist at the Monell Chemical Senses Center in Philadelphia.

His colleagues at the Natick center, where he began working in 1990, praised him for his creativity and his wide variety of research interests. He specialized in nutritional and behavioral epidemiology, first as a food technologist and

later as a psychologist, and helped develop everything from the foods soldiers eat to the clothes they wear.

In his spare time, Bell researched various public health issues and had a private consulting practice that addressed food allergies and the effect of certain foods on the immune system.

At the Friedman School, he participated in countless oral examinations, served on many thesis committees and worked on grant applications with a number of faculty.

"From the time he came to Tufts, Rick was in high demand, not only because he was so bright and creative, but because he was so warm, caring and supportive of the many people whose lives he touched," Goldberg said.

Bell taught through the end of the fall 2006 semester, even though he was in great pain. "He said that teaching energized him to go on," Goldberg said.

Last year, Bell moved from Woburn, Mass., to a home in Nottingham, N.H., that he and his wife, Beth Tener, had carefully planned in every detail to make both beautiful and environmentally friendly.

In addition to his wife, Bell leaves his mother, Rita, of Hackensack, N.J., and a sister, Carrie Jacobus, of Oradell, N.J. A memorial service was held at Deerfield Town Hall in Deerfield, N.H.

N05 **Cathy Culleton** writes, "All is well in Sacramento. I'm busy working at the Native American Health Center."

Kelly Horton is the founder of the consulting organization, Connect Nutrition, which is based in Seattle. The organization works with NGOs, govern-

ment agencies and universities to create nutrition programs that meet the needs of families and communities. While at Simmons College and the Friedman School, Kelly developed the idea for her organization and enlisted colleagues to create a network of consultants to provide technical assistance for nutrition and

health programs. Other Friedman graduates involved are **Charlotte Block, N06;** **Patrick Rasca, N06;** and **Denish Moorthy, N06.**

N06 **Charlotte Block,** **Patrick Rasca** and **Denish Moorthy, see N05.** **Monique Mikhail** worked for

International Development Enterprises in the summer of 2006, and her piece on multiple-use water systems was accepted by the *South-South Solutions* e-newsletter of the United Nations Development Program.

Aimee Witterman, see N01.



PEACE OUT, JIM

Jim Levinson once tried to explain his job at USAID to his daughter Mira by saying he was helping to feed the world's hungry children. Sometime later, she had the chance to spend the day at his office in Washington. It was a busy day, with most of the office engrossed in a staffing issue. The confused 5-year-old turned to him and asked, "How come you aren't talking about the hungry children?" The question now hangs as a plaque in his office, a reminder to him, and the many students who stop by, to keep focused. For more on Levinson's career, turn to page 22.



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