

#### FRONT MATTER

# From Frosting to Fluoride

WHETHER SHE'S WHIPPING UP A WEDDING CAKE OR MIXING DENTAL composite, Stacey Temple, D10, likes working with her hands. When Temple receives her D.M.D this spring, she'll be embarking on her second career. Before starting dental school in 2006, Temple spent nearly a decade as a pastry chef in some of Boston's swankiest kitchens.

After graduating from culinary school in 1997, Temple worked as a cake decorator in a bakery, as a corporate chef and as pastry cook at the Seaport Hotel restaurant Aura. It was at Boston's legendary Maison Robert—which served local luminaries in Old City Hall for three decades—where Temple, then executive pastry chef, made an apple tart for none other than Julia Child. TV's first chef was friendly, encouraging and "had a strong handshake," Temple recalls.

More than just delicious, Temple's toothsome morsels are also works of art. At the Seaport, she made a scale-model cake of the *Titanic*, almost—but not quite—too accurate to eat. A frequent winner of regional pastry competitions, Temple has also created delicate and detailed dioramas out of edible materials. Her miniature 1950s' diner, made completely out of chocolate, took first place in the 2000 Architectural Masters of Pastry Competition sponsored by the Professional Pastry Guild of New England. Another creation featured a Mission-style living room with tiny chocolate chairs and a marzipan cat.

Though she loved the artistry involved, Temple never really took to the hectic, often-nocturnal schedule of a pastry chef. After studying biology and psychology at California State University, San Bernardino, she enrolled at Tufts Dental School. A radical career move? Hardly. The two occupations have a lot in common, says Temple, whose father is a dentist in California. "Baking is really quite a science, and dentistry is a science but an art, too," she says. "Hands-on, detail-oriented work has always appealed to me, and that's something both careers have in common. I can mix alginate like nobody's business."

Next Temple plans on doing postgraduate work in general dentistry. But she hasn't shelved her pie pans for good. She dreams of one day opening a bakery with her sister, an interior designer who also decorates cakes. In the meantime, she frequently wows her classmates with her weekend creations and also donates some of her confections to good causes, such as the pies and tarts she made for an American Association of Women Dentists bake sale. A volunteer at Tufts Medical Center's psychiatric unit, Temple brought in the ingredients and taught patients how to bake pies.

How does the future dentist reconcile her old and new vocations? How does she make the mental leap from working with sugar cane to doling out Novocain? Temple has a philosophy that will satisfy even the mightiest sweet tooth: "Everything in moderation."

—JACQUELINE MITCHELL

# contents

## features

#### 9 A Village Thrives in Zambia

What started out as a dental program has developed into myriad opportunities for the people of Muchila. by Taylor McNeil

#### 14 The Quiet Pioneer

Jessie Gideon Garnett, a 1919 alumna, opened doors for African Americans and for women. *by Julie Flaherty* 

#### COVER STORY

#### 16 Snooze Control

Untreated sleep disorders cost \$150 billion each year in accidents and lost productivity and another \$48 billion in medical costs for drowsy drivers who get into accidents. How Tufts Dental School is addressing this public health threat. by Jacqueline Mitchell

#### 21 Stage Struck

Forget what you remember about high school plays. Len Radin, D73, has his students reaching for the stars—and it doesn't hurt that the director makes fabulous fangs. by Julie Flaherty

#### 26 Living With MS

The five words that changed my life.

by Michael Suddath, D85

Cover illustration: Scott Bakal





#### departments

- 2 LETTERS
- **3** FROM THE DEAN
- 4 WORD OF MOUTH
  WHAT WE'RE TALKING ABOUT
- 7 LAB NOTES
  A REPORT ON LEADING-EDGE SCIENCE
- 28 UNIVERSITY NEWS
  THE WIDER WORLD OF TUFTS
- 30 ON CAMPUS
  DENTAL SCHOOL NEWS
- 39 BEYOND BOUNDARIES
  PROVIDING THE MEANS FOR EXCELLENCE
- 42 ALUMNI NEWS

#### REMEMBERING A MENTOR

I read about the death of Frank Susi, former senior associate dean, in the Fall 2009 issue of the magazine. When I was a first-year dental student, and Frank was a new faculty member, I was struggling in histology. I could barely recognize a nucleus! Frank spent several lunchtimes with me, at his teaching microscope, pointing out what the different structures were. I ended up getting a B in the course, but more importantly, I learned how a caring teacher can make all the difference for a student, struggling or otherwise. I told Frank, fortunately several times, how much I appreciated him and what he did for me.

BRUCE BAUM, D71 CHIEF, GENE THERAPY & THERAPEUTICS NATIONAL INSTITUTE OF DENTAL AND CRANIOFACIAL RESEARCH

#### REWARDING WORK

I still love my community health center career choice and continue to be challenged every day at my job ("Out in the World," Fall 2009). The work is very rewarding, and the health center is making a big difference in this community. It was nice to have Tufts foster the public service side of dentistry while I was a student there. Hopefully other students are getting that opportunity!

> CHRISTINA DAHLKE, DO5 LAKES COMMUNITY HEALTH CENTER ASHLAND, WISCONSIN

#### MEDICINE MATTERS

I am 10 months into a GPR, and I wanted to write to applaud the dedication and commitment that Professor Kanchan Ganda puts into the Medicine I and Medicine II classes. They were challenging classes, and at times I wondered how much I would retain. Now I am using so much of what she taught us. I've been seeing patients who are undergoing chemotherapy and radiation, who are on dialysis, who are pregnant, who are on multiple blood thinners, who had IV bisphosphonates. The population here in Hawaii is very different from the population that we treat at Tufts. Now when I look at a medical history, I feel a lot more comfortable. Red flags start to pop up, questions start to formulate in my head that I know I need to investigate to determine what I can or cannot use during treatment. There have been times when my patients were unaware they needed antibiotic prophylaxis. I've had attendings tell me that it's safe to use carbocaine on pregnant patients, and I've had to explain why that's not so. All I want to say is thank you for making me a cautious practitioner and helping me leave Tufts with a solid medicine background. I can't tell you how invaluable that has been.

> HELEN CHING, DO9 GPR, QUEENS MEDICAL CENTER HONOLULU, HAWAII

#### OMITTED

Our "Moving On" article (On Campus, Fall 2009) left out that Lindsay Roskelley, D09, is now in private practice in Hawaii.

Jake Jinkun Chen, DI09, A12P, should have been listed as a donor in the Dean's Inner Circle, Society of Tufts Fellows, at the \$10,000 to \$24,999 level in the 2008–09 Record of Giving, published by the Office of Dental Development.

#### WRITING WELL

The Winter 2009 issue of Tufts Dental Medicine, which featured a cover story on geriatric dentistry, has won a Bronze Medal for Best Writing in the Council for Advancement and Support of Education 2010 District I Communications Awards contest for the work of Julie Flaherty and Jacqueline Mitchell, both senior health sciences writers in Tufts' Office of Publications.

#### TALK TO US

Tufts Dental Medicine welcomes letters, concerns and suggestions from all its readers. Address your correspondence, which may be edited for space, to Karen Bailey, Editor, Tufts Dental Medicine, **Tufts University Office of Publications,** 80 George St., Medford, MA 02155. You can also fax us at 617.627.3549 or email karen.bailev@tufts.edu.

# **Tufts DENTAL MEDICINE**

**VOLUME 14. NO. 1 SPRING 2010** 

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Tufts Dental Medicine is published twice annually by Tufts University School of Dental Medicine, the Tufts University Dental Alumni Association and the Tufts University Office of Publications. The magazine is a publication member of the American Association of Dental Editors.

Send correspondence to: Editor, Tufts Dental Medicine Tufts University Office of Publications 80 George St., Medford, MA 02155



#### **Tufts Prints Green**

Printed on 25% post-consumer waste recycled paper. Please recycle.

# Where We've Been-Where We're Going



IT HAS BEEN A BUSY COUPLE OF MONTHS AT TUFTS Dental, starting with the celebration of the completion of the school's 95,000-square-foot addition on November 20 and culminating with the move into our new space. More than 1,400 guests joined us for the grand opening of our new facility—the result of seven years of planning and 18 months of construction.

The school's administrative offices—Admissions and Student Affairs, Academic Affairs, Research Administration, Public Health and Community Service, Financial Administration, Executive Associate Dean and the Dean's Suite—moved to more functionally conjoined space on the 15th floor in mid-December. Postgraduate programs from the second floor moved into brandnew clinic space in January. The Endodontics and Orthodontics departments and clinics are now on the 11th floor, and the Periodontics Department and the Postgraduate Prosthodontics Division and clinics are on the 12th floor.

The new alumni lounge, with its panoramic view of Boston Harbor, has given us the flexibility to host a variety of school and university events, including President Bacow's holiday reception for the Boston campus and a 100-seat dining area for the school's holiday luncheon. The lounge is also used for meetings with prospective students.

The vertical expansion has also given us the opportunity to enhance current activities—and to plan for future growth. The 20,000 square feet of shell space on the new (but undeveloped) tenth floor affords us space for future programmatic initiatives. We have the option of expanding the continuing education program on the 14th floor to increase participation and employ telecommunications capabilities to broaden those offerings to national and international

In addition, now-vacated spaces on the lower floors can be renovated to improve services for our patients and expand pre-doctoral clinics.

While our new building has met our current and anticipated space needs, it is still our exceptional faculty, students and staff who will continue to bring distinction to Tufts University School of Dental Medicine as a leader in education, research and patient care.

However, now is not the time to become complacent amid our successes in our stunning, state-of-the-art building. And so we are developing strategies to assess the effectiveness of our current programs (an initial retreat was held in February); evaluate the culture of the working environment at One Kneeland Street and plan for future improvements. School staff have completed an "excellence at work" survey that will provide us with valuable input. A "strategic talent development" process is ongoing with each of our full-time faculty members, and data gathered from that will be used to advance teaching leadership within our faculty, among other goals. In April, the school will hold its annual strategic planning retreat to review achievements of the past year, address short-term goals for 2010-11 and reinforce our mission to continually strive to be even better.

While we have much to celebrate, a number of renovation projects, technological advancements, academic programs and faculty and staff development initiatives still need to be addressed so that our new space is used to its fullest potential. One example of an innovative new curriculum, featured in this issue of the magazine, is the launch of the nation's first university-level dental sleep medicine program, developed by our Craniofacial Pain, Headache and Sleep Center [see story, page 16].

Finally, despite the challenges of this economy, we are working toward the completion of the Beyond Boundaries capital campaign in June 2011. With the support of alumni, corporations and friends, the school has achieved \$36 million of its \$40 million goal to date. Our alumni have been extremely generous, and your continued loyalty and commitment are essential to realizing our vision for the future of Tufts Dental School. On behalf of the faculty, staff and students, I extend our sincere appreciation.

Lonnie H. Morris

LONNIE H. NORRIS, D.M.D., M.P.H.

WHAT WE'RE TALKING ABOUT



# Red Hot

Your hair color highlights your sensitivity to pain by Julie Flaherty

T HER MOST RECENT DENTAL EXAM, CHRISTINA CROSBY, 22, FOUND to her surprise that she had developed a reputation. Her dentist took one look at her naturally red hair and said, "You're going to be tough to handle, aren't you?"

He wasn't alluding to redheads' legendary tempers, but to some hard science. A recent series of studies has found that as a whole, redheads are more sensitive to pain, more resistant to local pain blockers used in dentistry and need larger doses of general anesthesia than their differently hued peers.

It's long been lore of sorts in anesthesiology circles that redheads were more difficult to put to sleep, "but there was never any proof," says Morton Rosenberg, D74, A09P, head of the dental school's Division of Anesthesia and Pain Control.

Then in 2004, a study in the journal *Anesthesiology* showed that on average, redheads needed about 20 percent more anesthesia—a clinically significant amount—than people with dark or blond hair. A 2005 study in the same journal reported that redheaded women were more sensitive to pain caused by heat or cold and felt less relief from injections of lidocaine than dark-haired women.

"It validates people's clinical impressions, and that's always good," Rosenberg

says. Every patient has to be evaluated individually, of course, which is part of why Rosenberg calls administering anesthesia as much an art as it is a science. But with this new evidence, "you understand that redheads may have a different anesthetic requirement, and you take that into consideration."

Scientists suspect there is a logical link between copper-topped heads and sensitive nerves. Hair color is determined by the melanocortin-1 receptor, a gene that in blonds and brunets causes the body to produce melanin. But a mutation in the MC1R gene leads to the production of a substance called pheomelanin, which gives redheads their distinctive hair color and skin tone. The MC1R gene has also been found in the brain, where it is part of the pain-processing mechanism.

The genetic correlation is pretty cool, Rosenberg says. But even more important for the day-to-day work of dentistry could be the recent discovery that redheads have more dental anxiety than blonds or brunets. The study, published in the Journal of the American Dental Association, found that people with the MC1R mutation are especially fearful of dental pain and more than twice as likely to avoid going to the dentist.

"They may have had bad experiences because they didn't get as numb in the past," Rosenberg says, "and that's how most patients develop a phobia, because they are afraid of being hurt again. It's a bad spiral," because avoiding care often leads to more pain.

For the record, Crosby, who works in the finance department at Tufts Dental School, has never had an issue with anesthesia and is perfectly comfortable in the dental chair. The study authors recommend dentists keep an eye out for anxiety in all patients, but especially the redheaded ones.

The news already seems to be empowering some patients. Monica Rancourt, D10, treated one redhead who had heard about the studies. "She said to me you might have a hard time because I've had a hard time in the past," Rancourt said. The patient was indeed harder to numb, but the procedure went just fine.

#### **COMMUNITY DENTIST**

OR HANIF BUTT, DI92, ACCESS TO DENTAL CARE ISN'T AN ABSTRACT CONCEPT, IT'S A PAINFUL and vivid childhood memory. "I remember having a toothache as a child," he says. "It was the worst experience of my life. My parents did not have a clear understanding of [the importance of] dental health care. I just wish no child suffers like that."

That's why Butt, who grew up in Nairobi, Kenya, spends much of his time providing oral health education and dental care to the people of Somerville, Mass., where he has lived and practiced for more than a decade. He works closely with the city school system, the local Head Start program and the Women, Infants and Children (WIC) chapter to organize free screenings and oral health education sessions for parents and kids.

"Simple preventive programs can make a big difference in the child's life," says Butt, who earned a public health degree from Harvard after graduating from Tufts. Last year alone he gave oral health presentations to all 400 Somerville first-graders. He arranged for the Massachusetts Dental Society van to provide free screenings and sealants to children. And through the Somerville Chamber of Commerce, he has distributed more than 1,000 coupons for free oral screenings.

In fact, anyone who makes an appointment at Butt's practice, the Somerville Dental Center, can get screened for free. And when those screenings turn up cavities or other oral health problems, Butt and his staff will provide the appropriate care, regardless of a patient's ability to pay.

Butt trained as a public health dentist at the University of Nairobi School of Dental Sciences and established outreach and preventive programs in rural Kenya. He says he is transforming his Somerville practice into a full-service "dental home" for city residents by including a child-care center so kids can be supervised while their parents receive treatment.

"I believe every dentist should offer some form of prevention program to the community," Butt says. "I know a lot of my colleagues are doing it every day." -JACQUELINE MITCHELL



Hanif Butt, DI92, is on a mission to provide care for an entire city.

OVERHEARD

"The kids are in braces too long. A hygiene problem develops because it's much more difficult for kids to take consistent care of their teeth and gums."

-MARTIN KAPLAN, D75A

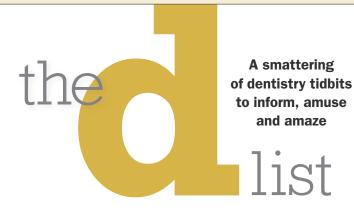
INSTRUCTOR IN PEDIATRIC DENTISTRY, IN A PARENTHOOD COM ARTICLE AROUT THE PROS AND CONS OF EARLY ORTHODONTIA

#### LOAN ASSISTANCE FOR ALUMNI IN SERVICE CAREERS

The Tufts Loan Repayment Assistance Program (LRAP) helps selected Tufts alumni working in the nonprofit and public sectors pay a portion of their annual education loan bills.

Believed to be the first university-wide program of its kind in the country, LRAP gives Tufts graduates the financial breathing room to pursue relatively low-salaried public service careers. Last year, the first year of the program, 25 Tufts dentists received assistance through LRAP.

The deadline for applying for this year's program is Wednesday, September 1. All Tufts graduates who earned an undergraduate, graduate or professional degree, with education loans incurred for the purpose of attending Tufts (as certified by the Tufts Financial Aid Office) and who are employed by a nonprofit or public-sector agency, can apply. For more information and to download an application, go to http://lrap@tufts.edu.



## Top 5

Lynn Solomon, associate professor of oral pathology, is listed as one of five up-andcomers in dentistry by Dental Products Report. Her big goal: better ways to diagnose and treat oral cancer. She is testing blood samples from cancer patients to determine if the blood contains antibodies that can help detect the disease or predict a patient's prognosis.

The year of release of one of Walt Disney's first silent shorts, Tommy Tucker's Tooth, commissioned by the Kansas City dentist Thomas B. McCrum to promote good oral hygieneand his practice. Disney, who needed the money, was paid \$500, and produced a second short for McCrum in 1926, Clara Cleans Her Teeth.

The percentage of health-care spending in the **United States** directed toward oral health.

The age of George Washington when he lost his first tooth. By the time he was inaugurated president in 1789, he had but one tooth, according to the National Museum of Dentistry.



#### 16 OUNCES

The amount of saliva an average person produces each day, enough to fill a soda bottle.

9 out 10

U.S. adults who have difficulty understanding and applying general health information available in health-care facilities, retail outlets, media and their communities, according to the new ADA report, "Health Literacy in Dentistry Action Plan, 2010-2015."

4,500 years ago

When scientists believe the earliest dental patient in the Americas was treated. A man found beneath 12 feet of volcanic ash in Michoacán, Mexico,

appears to have had his upper front teeth filed down to make way for a denture, most likely the palate of a jaguar or wolf.



A speed record set by Christine Benoit, D77, D09P, and Robert Amato, D80, DG83, for raising more than \$150,000 (and still counting) to name a new operatory on the dental school's 11th floor in honor of their longtime mentor and colleague, Vangel R. Zissi, D62, DG67, A02P, an endodontist who directs the school's Division of Continuing Education.

69%

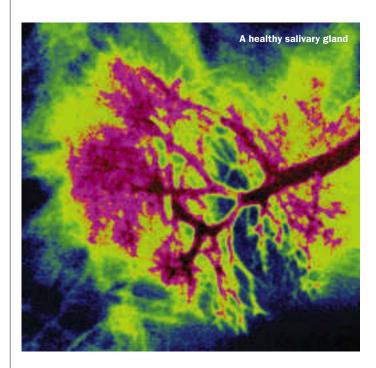
The number of applicants to U.S. dental schools in 2006 who were millennials, those born after 1981, according to the American Dental Education Association.



# Lucky 13

Shirwac Mohamed, D13, and Allyce Sullivan, D13, have been awarded National Health Service Corps Scholarships in exchange for working two to four years in an underserved area after graduation.





# NOT A DRY EYE

# Stem cells could be used to repair damaged lacrimal and salivary glands by Jacqueline Mitchell

HINK ABOUT THE SMELL OF FRESHLY BAKED BREAD WAFTING from the oven. Chances are your mouth is already watering. Beyond the purely sensory, saliva plays a crucial role in our ability to chew, swallow and digest food. It also helps keep our teeth cavity-free. Damage to the salivary glands, as well as the tear-producing lacrimal glands, can lead to major health problems, including organ damage and a higher risk for developing lymphoma.

Whether these glands stop working due to injury, often from radiation therapy for certain cancers, or diseases such as HIV and diabetes, the resulting dry eyes and mouth can severely affect a person's quality of life.

But what if these damaged glands could be repaired? That's not so far-fetched, says Driss Zoukhri, an associate professor of general dentistry at Tufts, whose research team has already demonstrated that at least in mice, injured lacrimal glands can repair themselves, quite possibly through an influx of stem cells, which have the potential to grow into any type of cell in the body.

Now, with a two-year, \$1 million National Institutes of Health grant

funded under the American Recovery and Reinvestment Act, Zoukhri will investigate the cellular mechanisms underlying that repair process. The researchers want to figure out where those stem cells are coming from and what cellular signals recruit the cells to the damaged glands to begin the repair work. Those discoveries could produce better treatments for people with damaged tear and salivary glands.

Each year about 40,000 Americans are diagnosed with head and neck cancers, for which radiation therapy is the first line of treatment. And up to 88 percent of patients who undergo radiation for those cancers will experience reduced salivary flow for more than a year.

Another four million people in North America suffer from Sjögren's syndrome, an autoimmune disease that attacks tear and salivary glands, leaving patients—90 percent of them are women over age 45—with chronically dry eyes and dry mouth. Sjögren's is one of the most common autoimmune diseases, and there is no cure. Sjögren's can occur by itself, but more often arises in conjunction with another autoimmune disease, such as multiple sclerosis, rheumatoid arthritis or lupus.

Tears and saliva, says Zoukhri, are chemical cousins, both consisting of water, electrolytes and proteins. Saliva is a bit stickier than tears, and the enzymes it contains help us digest carbohydrates. But both fluids are so similar that surgeons are able to re-route the salivary ducts of patients whose lacrimal glands have been permanently damaged so that their salivary glands produce moisture and lubrication for both the eyes and mouth.

In Sjögren's patients, their body's own immune system—by mechanisms not completely understood—attacks the glands' cells and causes a decrease in salivary or tear flow without actually destroying the glands. "When you look at biopsies from the salivary glands of Sjögren's patients, in a lot of cases, 50 percent or more of the tissue is still intact," Zoukhri says. "The glands should only need about 10 percent of the tissue to produce adequate secretion," he says, "so we don't understand why the remaining portion of the gland isn't working." That provided an opening for researchers like Zoukhri to devise a way to reverse the damage and get the tears and saliva flowing again.

In an article published in the journal *Investigative Ophthalmology* & *Visual Science* in 2008, Zoukhri and his colleagues describe how they were able to induce, and then reverse, the symptoms of Sjögren's syndrome in mouse lacrimal glands. They injected inflammatory cytokines—normally released by the body's immune system to kill invading pathogens—into the mouse glands. After 24 hours, the cytokines attacked and effectively shut the glands down, mimicking the symptoms of Sjögren's. But the effects were not permanent. "To our surprise, the lacrimal glands completely healed by days six and seven," says Zoukhri.

The researchers found that in the glands they'd injected with cytokines, the lacrimal cells died by apoptosis—programmed cell death that occurs most often during

See GLANDS, next page

**GLANDS**, *continued from previous page* embryonic development. They also found that the number of stem cells in the glands increased dramatically.

"We don't know if the stem cells are recruited from elsewhere or are activated in the gland tissue," says Zoukhri. He suspects that apoptosis triggers tissue repair by somehow sending the stem cells to the damaged glands, where they differentiate into new, healthy gland tissue. His hypothesis is that a defect in the apoptotic process is what causes salivary and lacrimal glands to malfunction in people with Sjögren's. (While the research published in 2008 was confined to the lacrimal gland, Zoukhri's unpublished data show that the same principles apply to the salivary gland. "Diseases of one very often affect the other," he says.)

With the new NIH funding, Zoukhri and his team will isolate the

mouse stem cells, propagate them outside the body, and inject them into other animals with damaged glands. If the cells can restore glandular function, it could signify a breakthrough in treating people with Sjögren's and other disorders of the tear and salivary glands.

It goes without saying that replacing, instead of repairing, diseased and injured tear and salivary glands would be the grail for treating disorders like Sjögren's. To that end, Zoukhri is collaborating with Christophe Egles, an assistant professor at the dental school who works in the lab of Jonathan Garlick, director of the school's Division of Cancer Biology and Tissue Engineering, as well as with David Kaplan, professor and chair of biomedical engineering at Tufts, to create artificial lacrimal and salivary glands.

"We'd ultimately grow artificial glands, implant them into animal models and see how they work," says Zoukhri.

#### AN END TO ADULT TOOTH DECAY?

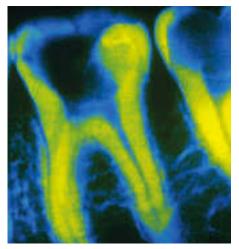
N WHAT IS REGARDED AS ONE OF THE LARGEST controlled studies of adult tooth decay prevention ever undertaken, Athena
Papas, the Erling Johansen Professor of Dental Research, is nearing completion of a four-site, \$11 million clinical trial to test the effectiveness of a chemical coating that combats the bacteria responsible for caries.

While the results of the trial won't be available until later this year, the preliminary findings are promising. "It's the first new thing to be tried since fluoride," Papas said.

Dental caries is the most prevalent chronic disease of adults and children in the United States, and even more adults will experience tooth decay because they're living longer. Adult dental caries also poses a substantial economic burden, Papas said, accounting for up to 5 percent of the nation's health-care spending.

The anti-bacterial coating, a 10 percent concentration of the antiseptic chlorhexidine, penetrates into the teeth and leaches out slowly over several weeks. "It takes about six months for the effects of the coating to wear off," Papas said, which means dentists would be able to apply the coating at their patients' regularly scheduled examination and cleaning appointments. (The FDA has already approved the use of chlorhexidine, in a much lower concentration, in mouthwashes to reduce plaque and bacteria.)

The clinical trial, dubbed the Prevention of



Adults get cavities as much, or even more, than kids do, according to one study.

Adult Caries Study (PACS), has followed nearly 1,000 patients from diverse populations all over the country over 13 months. The goal was to study patients who visit the dentist regularly, as well as those without access to routine dental care.

This is the third phase of an FDA clinical trial that is being funded by the National Institute of Dental and Craniofacial Research, part of the National Institutes of Health, and CHX Technologies Inc., which manufactures the coating. In phase two, which followed 236 patients with xerostomia—the dry mouth that makes them more prone to caries—at Tufts, the University

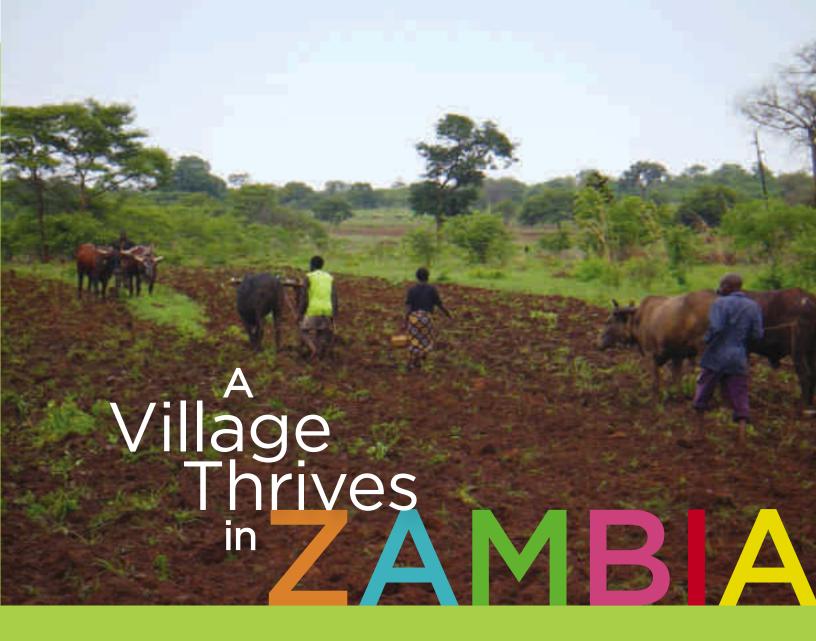
of British Columbia and the University of Western Ontario, "we found that [the coating] does decrease tooth decay among xerostomic adults," Papas said.

Most Americans over the age of 55 have tooth decay, yet most caries prevention programs have focused on children. One recent study concluded that older adults experience the same if not higher rate of cavities than kids. Age-related conditions such as gum recession, which exposes tooth roots to plaque, and decay around fillings account for the higher incidence of caries in older Americans, according to the American Dental Association.

For adults at the greatest risk for tooth decay, the current standard of preventive treatment is prescription-strength fluoride, a regimen that has remained unchanged for years. But in 2001, an NIH conference on "Managing Dental Caries throughout Life" determined that something more needed to be done. The conference participants concluded that "we needed to do some randomized trials to find out what works and what doesn't work so we can provide good data to dentists," Papas said.

Data from Papas' study are still being compiled, and she expects to report on the results later this year. "This is a ground-breaking study," Papas said, "and hopefully it will have an impact on the dental profession."

—JULIE FLAHERTY



When health-care initiatives help communities harness their own resources, the rewards increase exponentially

> EFORE JOHN MORGAN AND HIS TEAM OF DENTAL PROFESSIONALS CAME TO Muchila, a large rural community in southern Zambia, people who had toothaches simply suffered. If it hurt badly enough, they would rinse their mouths out with diesel fuel or bleach, anything to try and stop the pain.

> "In the United States, we have one health-care provider for every 390 people. In parts of southern Africa, it's one to 50,000 people," says Morgan, an associate professor of public health and community service at the School of Dental Medicine. And even when there are health-care resources in many of these African countries, they tend to be concentrated in the larger cities. People in rural areas are mostly left to fend for themselves.

BY TAYLOR MCNEIL PHOTOGRAPHY BY JOHN MORGAN AND MARY LEE







**ABOVE: Village** women are earning money for the first time by selling their baskets, a microenterprise that grew out of the oral health project. RIGHT: Patricia Campbell, **Tufts' executive vice** president, on a dental mission to Muchila.



That's no longer the case in Muchila. Over the past five years, Morgan and his colleagues have trained a corps of 10 volunteer

dental public health workers there who have given oral health screenings to some 10,000 people. Because of the trusting relationships developed through the dental program, the Tufts team has expanded its mission to include other projects to help Muchila's people, such as providing fresh water for the first time and starting micro-enterprises to spur economic development.

And there's promise of even greater benefits. "The idea with the Muchila project is to build a model that can help all of southern Africa, with its very poor ratio of health-care workers to population," says Morgan. Tufts and the Muhimbili University of Health and Allied Sciences

in Tanzania, which have been collaborating on public health curricula for several years, are working toward that goal, sharing a U.S. Agency for International Development (USAID) grant to adapt and test the Zambian model for sustainable health care in Tanzania.

#### THE MULTIPLIER EFFECT

The roots of the Muchila project began in 2004, when Morgan, prompted by a couple of Tufts dental students who wanted to offer health care in Africa, led a mission



to Zambia. While working in a hospice in Lusaka, the capital city, the dental team met Max Gallaba, a Zambian and former Catholic priest who was volunteering there. Gallaba knew well the toll of poor oral health: Children in school, he said, had a hard time concentrating because of toothaches, and worker productivity suffered for the same reason.

Gallaba suggested that Morgan and his





**ABOVE: Treating a young patient** at the dental clinic in Muchila. **RIGHT: One of the boreholes that** brought fresh water to Muchila for the first time.



**BELOW: Detail from a** Zambian tribal textile sold by Options for Children.







**LEFT: Team** members meet with the village elders. ABOVE: The children of Muchila.

colleagues go to Muchila, a farming village about an eight-hour drive from Lusaka. While "village" might bring to mind a cluster of huts, in Zambia these communities encompass a number of settlements, along with farming and grazing land. Muchila, for example, has a population of 28,000 people, most of them farmers or herders. There is no running water or electricity.

Gallaba's family had settled in Muchila

when he was young, and though he now lived in Lusaka, he knew the village chief and elders. He set to work paving the way for the dental team to visit. "People from the village had not seen a dentist before, and they had not been visited by anyone from overseas," Gallaba says. "I had to convince them they would be helped, and together with the village leaders and the medical staff at the rural health center, we managed to bring people

together, and the community accepted us."

Morgan adds that "once they got to know us, and we started taking care of some pain issues, all of a sudden they really wanted this dental project."

The team, which includes Tufts dental school students and faculty, went on to make twice-yearly visits, and soon realized that the village needed a sustainable program to develop a network of health-care providers. "So we trained local dental volunteers to educate the communities about prevention and hygiene, and they continue the project in the absence of the team," Morgan says. Gallaba points out that "the villagers now know how to organize themselves and develop the community on their own."

The program has more than exceeded Morgan's expectations. He says he's amazed that the community-based volunteers have cared for thousands of people. "This model, with a multiplier effect, has great value in terms of building capacity at the village level," he says. "We think it is a good one to work with, to find techniques to apply to other health-care systems."

#### THE PROJECT EXPANDS

Once the villagers in Muchila became comfortable with the team, they had a request: We need clean water. "If you want to improve an overall health outcome, you have to deal with the water contamination situation and its contribution to disease," Morgan says. Soon he and Gallaba, through Maureen Lombard, the dental school's director of clinic operations, contacted a U.S. Rotary Club that was doing water projects and linked it with similar organizations in Zambia. Two boreholes were drilled, and for the first time, the village had regular sources of clean water.

Another pressing community issue the dental professionals took on was the large number of orphans who needed to be cared for. Among Zambia's 13 million people are some 800,000 children who have lost their parents to the ravages of AIDS and other diseases. In Muchila, as elsewhere, they are usually taken in by local families, which are often poor. With support from their fundraising arm, Options for Children, Morgan and the other health-care providers decided to subsidize a farm that raises corn that is sold to benefit the orphans.

"It was sad," says Morgan. "These orphans are overburdening so many families in the village, so we thought with the farm we could feed them and also sell some of the corn to buy shoes and enough supplies [for the children] to go to school. We'd like to expand that program."

Muchila's chief had another request: Help the village women start a small business venture. "They are the backbone of the culture," says Morgan. "They have the babies,

#### "THE IDEA WITH THE THAT CAN HELP ALL OF RATIO OF HEALTH-

they raise the families, they work out in the fields." The women decided to make baskets to sell to tourists, and the dental team takes the baskets to area markets and brings the proceeds back to Muchila.

"The women say they never thought they would ever be paid for anything in their whole lives, so this has been a big boost to them," Morgan says. "This has given them a vision for what they can do." Next, the dental team hopes to help the women branch out into jewelry making. Another task will be to improve the distribution of the goods so they don't have to rely so heavily on the team to get their products to market.

Even though the Tufts project is still focused on oral health care, its success in other areas has been an eye-opener. It has

#### NATIONAL TREASURE

Temba Mudenda, D71, Zambia's first native-born dentist, spent his career spreading the word about preventive care

WHEN TEMBA MUDENDA RETURNED TO ZAMBIA TO PRACTICE AFTER GRADUATING from Tufts School of Dental Medicine in 1971, he made history. The country had become independent only seven years earlier, and Mudenda was the first Zambian dentist.

He's typically modest about his achievement, having retired from both his practice and his longtime work as a public health administrator. Throughout his career, though, he raised standards and sought to expand access to oral health care in his native country.

Mudenda had first come to the United States to study for his undergraduate degree at Washington & Jefferson College in southwestern Pennsylvania, and quickly decided to pursue an advanced degree. "At the time, the greatest need I perceived in my country was for dentistry, because there were no Zambian dentists at all," he says.

When he arrived at Tufts, he didn't know anyone and was the only black person in his class. He was assigned a room in Posner Hall, and then came a knock at the door. It was his new roommate, Jim Case, D71. "I looked at him and said, 'You are most welcome. I need a roommate to tell me a lot of things about Boston," " Mudenda says. "But," he adds with a laugh, "he was from California." They became fast

friends and explored the city together. They remain in touch via email.

When he graduated, Mudenda didn't have any doubt about where he belonged. "I am the first born in the family, and in our culture, there is a lot of responsibility placed on the first born," he says. Arriving in Lusaka, the Zambian capital, he faced challenges as a new dentist, including a lack of equipment. But Tufts had prepared him well, he says. "They gave you the big black box with all kinds of things, and insisted you buy the equipment and fill it up, and that became my savior when I arrived [back home]."

Soon the Ministry of Health assigned him to run a health post in Livingstone, in southern Zambia near the border of Zimbabwe. He was the only dentist for hundreds of miles. Initially when patients came with toothaches, they just wanted the achy tooth pulled. "Now, with my training, the first thing was to preserve the teeth," he says. And after several years, "people would actually come and say 'filling.' It was very pleasant to my ears."

Promoting preventive care became his mission. He eventually returned to the United States to earn an MPH at the University of Michigan, and refocused his career on public health administration.

#### MUCHILA PROJECT IS TO BUILD A MODEL **SOUTHERN AFRICA**, WITH ITS VERY POOR CARE WORKERS TO POPULATION."—JOHN MORGAN

shown just how far reaching health-care efforts can be when they help communities develop their own resources.

"We believe you have to embrace both the community and the local university to create the infrastructure and education required for development," says Morgan. "The Zambia project is helping out a small community, but we learned that the community engagement piece is extremely important."

When USAID put out a request for proposals focusing on partnerships between universities and African institutions to develop programs for rural, underserved communities, it wasn't hard to decide on the next course of action. Tufts and Muhimbili University of Health and Allied Sciences (MUHAS) had already developed that symbiosis.

They received a six-month planning grant last year from USAID's Higher Education for Development unit to develop a model for rural

health care in sub-Saharan Africa. A team from Tufts—including Morgan; Mary Lee, J75, M83, an associate provost; and Patricia Campbell, executive vice president—went to Dar es Salaam in July 2009 to discuss ideas with MUHAS officials. Then, with the MUHAS director of planning, they traveled to Muchila to take part in the dental mission and get a better sense of how to apply the Muchila experience elsewhere on the continent.

"It was fabulous seeing how organized the community is," says Lee. "They are clearly on the path for exceptionally strong community development. It's a very effective program that we hope to adapt to other areas of Africa."

Now Tufts and MUHAS are exploring how to develop the health-care delivery and training model for other rural areas of Africa, starting with several villages in Tanzania.

Gallaba, who had been in the U.S. last summer and early fall raising money for Options for Children, returned to Muchila in October 2009 to help prepare the orphans' farm for spring planting and for a visit from the Tufts dental team's administrators in November. And he has another agenda: While visiting the Tufts team in Boston, he got certified in radiology for dental assisting. "Now he plans to pursue becoming a certified dental assistant," says Morgan proudly. TDM

Taylor McNeil, the news editor in Tufts' Office of Publications, can be reached at taylor.mcneil@tufts.edu. You can view an audio slideshow about Tufts' work in Zambia at http://go.tufts.edu/zambia.



From left: Max Gallaba, the former Catholic priest who paved the way for the oral health project; Patricia Campbell, Tufts' executive vice president; Temba Mudenda, D71, and his wife, Florence; and John Morgan, who led Tufts' first mission to Zambia.

Mudenda was instrumental in the development of dental therapy training at the Dental Training School in Zambia, which opened in 1969. It educates students to be dental therapists, as they are called, to provide almost all aspects of care, including restorative

dentistry and oral surgery, as well as preventive care.

He was one of five consultants hired by neighboring Zimbabwe to establish a dental school from scratch in that nation's capital. Harare, in the 1990s. The University of Zimbabwe Dental School is where Zambians now train to become dentists. Among the school's graduates are four Zambians, and another half-dozen Zambians are currently studying there.

Mudenda was also part of an effort to establish Dental Health Week in Zambia. "When that week came around, we literally dropped our tools and went out to factories, to schools and any other organizations that would cooperate to spread the word about preventive medicine," he says.

John Morgan, an associate professor who runs Tufts' oral health project in Zambia, says, "Dr. Mudenda spent his career in public service as a dentist and oral health-care administrator and truly embodies the principles of active citizenship and civic engagement. In his friendly yet unassuming way, he has brought advances in oral health to many thousands of Zambians who otherwise would have not received care."

Until he retired from his administrative work in 1994. Mudenda set aside two mornings a week "to attend to my patients." His wife, Florence, says that sometimes, "we meet somebody, and they say, 'Doctor, you remember me? You healed my tooth in 1972.' "

"That makes you feel good," says Mudenda. —TAYLOR MCNEIL



Jessie Gideon Garnett, opposite page, was Boston's first black woman dentist, practicing out of her home on Munroe Street, right, where a plaque reminds us of her contributions to the city. Above: Garnett's daughter, Ella, seated second from left, with family members at the Heritage Guild ceremony.

1897 - 1976

Heritage Guild Inc., 2009

# Jessie Gideon Garnett Graduate of Girl's High School in Boston. First female Alrican American graduate of Tutts Bental School First female African American deptiat in Boston. She practiced dentistry from 1919 to 1969. first in an office on Tremout Street and later to an office built behind this residence Her residence also served as a nursing home for elderly patients distharged from boapitals Founding member of the Boston Chapter of the Alpha Kappa Alpha sorority. Wife of Robert C. Garnett, mother of Robert C. Garnett, Jr. and Ella I. Garnett

# The Quiet Pioneer

Jessie Gideon Garnett, D19, opened doors for African Americans and for women by Julie Flaherty

> IF SHE HAD BEEN EVEN SLIGHTLY LESS PERSISTENT THAN SHE was, Jessie Gideon Garnett might not have been the first African-American woman to graduate from Tufts Dental School, which she did in 1919. As it was, when she arrived for registration, the dean of the school took one look at her and declared that her admittance had been a mistake.

"She stood her ground and said, 'Oh no, here is my acceptance letter,' " says her daughter, Ella Garnett.

It was just an early chapter in a life of quiet determination, one that would be marked by pioneering achievement and giving back to her community.

Ella Garnett, 85, is unsure why her mother chose to

"Growing up I thought all mothers got up in the morning, put on their white gown, went into an office and worked there for most of the day."

—ELLA GARNETT

apply to dental school, other than to do something different from her two older sisters, both registered nurses. She was one of 11 women, and the only African-American woman, in the class of 165 students.

After graduation, Boston's first black woman dentist set up shop in a professional building, but patients were hard to come by. She would putter around her office, going in and out of the laboratory, pretending to be busy. "She finally did get one man who was hurting so bad that he sat in her chair, and she helped him out," her daughter says. "He said, 'You really are a dentist."

Later, as her practice grew, she moved her office to the house on Munroe Street in the Roxbury neighborhood, where she lived with her mother, sisters and two young children. (She and her husband, a Boston police officer, had separated, although they would remarry later in life.)

"Growing up I thought all mothers got up in the morning, put on their white gown, went into an office and worked there for most of the day," Ella Garnett says. Only later did she realize that very few of the black women in her neighborhood had professions.

Patricia Carrington was a patient of Garnett's in the late 1950s. She was 14 years old when she went to Garnett's office to have a cavity filled and a tooth pulled. At the time, Carrington didn't know there were dentists who were women, or black. "She was a big surprise to me," she says.

"There was this gentle side to her," Carrington says, recalling how Garnett talked with her about school, and was sensitive to her fear of the dental chair. "But she wasn't going to broker any nonsense either." And when Garnett went to pull the tooth, Carrington felt how strong the short, plump dentist was.

It was only when her mother's health began to fail that Jessie Garnett, then in her 40s, learned to cook and sew. She turned out to be an excellent cook. She was a founding member of the Psi Omega Chapter of Alpha Kappa Alpha, the oldest black sorority in America, and would entertain pledges with her codfish cakes and blueberry dumplings.

"Every young black student who joined the AKA had to come to Dr. Jessie's house," Ella Garnett recalls. During World War II, the large Victorian house was also an informal stopover for soldiers in the 366th Infantry Regiment, an all-black unit of the U.S. Army.

But that was not all the house would be known for. Because Boston had few places where black patients could go for rehabilitation after they left the hospital, the city asked Garnett (who had taken medical courses as part of her dental training) to open her home to convalescing patients. She

agreed, and partitioned some of the larger rooms so that as many as 16 people would stay in the house on Munroe Street, including her family. She eventually built a small office next to the house, at the end of the driveway, so she could continue her dental practice.

"She was practicing, and she was cooking, and she was sewing, and she was taking care of these patients," Ella Garnett says. "She worked very hard."

By the time arthritis forced her to retire in 1969, Jessie Garnett had spent nearly a half century in dentistry. She was also a member of the NAACP and the Urban League and served on the board of directors of the Boston YWCA, St. Mark's Congregational Church and Freedom House in Roxbury. She died in 1976 at the age of 79.

In November 2009, Garnett was honored by the Heritage Guild, an organization that documents and promotes the historical significance of prominent African Americans in the Boston area. Her house at 80 Munroe Street, where she welcomed so many people, now bears a plaque recognizing her contributions.

"I was extremely pleased that the Heritage Guild honored the remarkable achievements of Jessie Gideon Garnett, and that I had the opportunity to meet her family," said Dean Lonnie H. Norris, DG80, who attended the ceremony. "I can only imagine the courage and confidence she had in being the first in so many professional endeavors in the early 1900s."

"She smiled a lot and had a sense of humor," said Heritage Guild President Adelaide Cromwell, who met Garnett in her later years. But overall, "she was a very quiet, unassuming woman. You wouldn't have known that she had any particularly assertive role in life." TDM

For 50 million chronically exhausted Americans, the dental school's pioneering sleep medicine program says have a good night BY THE TIME MARY KEELER ARRIVED AT THE TUFTS Dental Clinic, she hadn't had a good night's sleep in more than 15 years. Since 1993, Keeler had experienced daytime exhaustion so severe it interfered with her health, her mood, her work and her relationships. "I was sleeping my life away, but I couldn't seem to get to the bottom of it," says Keeler, now 61. After years of counseling, testing, trial and error, she eventually found the solution to her sleeplessness in what may seem an unlikely place—the dentist's office.

BY JACQUELINE MITCHELL ILLUSTRATION BY SCOTT BAKAL



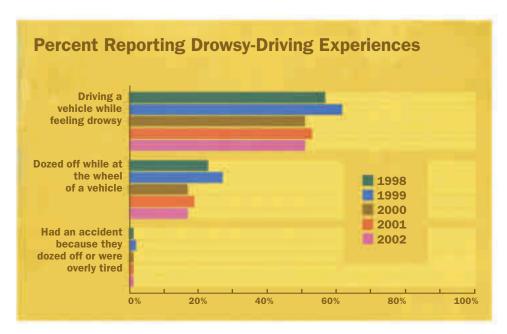
Maybe it's a product of our 24/7 lifestyles, but for many Americans, quality sleep is getting harder to come by. In 2008, the National Sleep Foundation surveyed 1,000 people for its Sleep in America Poll and found that 65 percent of them reported having a hard time falling or staying asleep more than once a week.

Though sleep medicine is a growing field, fewer than 40,000 of the nation's 750,000 physicians belong to the American Academy of Sleep Medicine. That's not even close to enough health-care providers to handle the estimated 50 million to 70 million Americans who are living with one or more of the 85 medically recognized chronic sleep disorders—including obstructive sleep apnea—that result in overwhelming daytime drowsiness. Untreated sleep disorders can lead to potentially deadly health problems, not to mention the hazards the chronically sleepy pose on the road and in the workplace.

Now, Tufts' new Dental Sleep Medicine Program, the first university-level curriculum of its kind in the United States, is training dentists—with their expertise in oral anatomy, surgery and therapeutic appliances—to screen, diagnose and treat their patients who suffer from sleep disorders, primarily obstructive sleep apnea, a condition in which a patient literally stops breathing for 10 seconds or more. First offered in fall 2009, the semester-long course offers postgraduate dental students classroom instruction and clinical training in sleep medicine. Students participate in patient evaluations, observe sleep studies and assist with fitting and adjusting oral appliances designed to give their patients a good night's sleep.

"I applaud the educators at Tufts School of Dental Medicine for the implementation of their Dental Sleep Medicine Program and hope that many dental schools will follow their lead," said the president of the American Academy of Dental Sleep Medicine, Jeffrey Pancer.

The sleep medicine program is offered as an elective to all 144 of Tufts Dental School's postgraduate students, and those in certain postgrad programs are required to take the course to earn certification in their specialties. "We didn't want it to be a





sleep medicine to be involved in all aspects of dentistry," says Noshir Mehta, DG73, DI77, professor and chair of general dentistry and director of Tufts' Craniofacial Pain, Headache and Sleep Center, which developed the program. "Ultimately, we'd like every postgraduate student to [take the course]," says Mehta.

Tufts has incorporated sleep medicine and management of chronic facial pain into its D.M.D. program for several years now to provide students with the tools "to identify patients who should get tested," says Leopoldo P. Correa, the course director and head of the school's Dental Sleep Medicine Section. Extending the curriculum to postgraduates preparing for specialty practice means "more students will gain the skills and in-depth experience they need to integrate dental sleep medicine into their practices," he says.

The most common sleep disorder is obstructive sleep apnea (OSA). Though figures vary, the National Sleep Foundation estimates that OSA afflicts more than 18 million

adults in the United States—that's nearly one in 17 of us—which makes the disorder as common as asthma and diabetes. In 1993, the Wisconsin Sleep Cohort Study found that among middle-aged people, as many as 10 percent of women and a quarter of men suffer from OSA. What's more, the Wisconsin study suggested that as many as 5 percent of adults may have undiagnosed OSA.

Like many sleep disorder patients, Mary Keeler's path to diagnosis and treatment was a winding, often frustrating one. For a long time her sleepiness was mistaken for a symptom of depression or a side effect of the medication she took to treat the depression. Finally, in 2006, a counselor suggested Keeler undergo a sleep study. After spending a night in a hospital hooked up to machines and monitored by sleep experts, Keeler was diagnosed with moderate obstructive sleep apnea.

OSA occurs when the tongue and/or soft tissues lining the throat collapse into the airway, causing pauses in breathing, and loud snoring, throughout the night. The pauses—each one called an apnea, for the Greek word meaning "no breath" can last anywhere from a few seconds to more than a minute. Apneas can occur hundreds of times in a single night. Each pause in breathing disrupts sleep, even if the sleeper never fully wakes up. That's why OSA patients can sleep for hours but still feel exhausted. The lack of restful sleep can lead to cognitive impairment, irritability, forgetfulness and depression. Beyond that, the drop in blood oxygen levels during episodes of apnea stresses the heart, putting OSA sufferers at greater risk for hypertension, heart attack and stroke.

#### DEADLY DEPRIVATION

Because being male, middle-aged and overweight are all risk factors for cardiovascular disease as well as OSA, quantifying the risk and disentangling the causes and effects is something of a chicken-and-egg problem. But even back in 1993, the Wisconsin Sleep Cohort Study found a correlation between the severity of apnea and severity of hypertension. More recently, in 2009, sleep researchers at Johns Hopkins concluded that sleep-disordered breathing is associated with an increased risk of mortality from "all causes," especially for men ages 40 to 70. That data was culled from the national Sleep Heart Health Study, which followed 6,000 participants over 15 years in the largest community cohort study of sleep.

But while sleep researchers continue to mine the data, it's clear that untreated apnea is poised to become a significant public health issue.

The gold standard for treating obstructive sleep apnea is a contraption known as a continuous positive airflow pressure machine, called a CPAP, which forces air appliances on the market, Correa customized one for Keeler. A follow-up sleep study found that while the apnea was gone, Keeler wasn't getting enough REM (rapid eye movement) sleep, the deep slumber that promotes cognitive functioning. It was a problem her sleep physicians were able to treat with medication. "That shows how important it is for sleep physicians and dentists to collaborate," says Correa.

"All of a sudden, I woke up like a new person," Keeler says. "I thought, 'So that's what it feels like to get a good night's sleep."

# "I applaud the educators at Tufts School of Dental Medicine for the implementation of their Dental Sleep Medicine Program and hope that many dental schools will follow their lead."

—JEFFREY PANCER, PRESIDENT, AMERICAN ACADEMY OF DENTAL SLEEP MEDICINE

down a patient's throat to create what Noshir Mehta describes as an "air splint" that keeps the airways open.

When Keeler's sleep physician outfitted her with a CPAP—which features an air pump, up to six feet of tubing and an airtight face mask—she had a very common reaction to the apparatus. "Well, I hated it. I absolutely hated it," says Keeler, who found the mask extremely awkward and uncomfortable. And she wasn't the only one who hated the CPAP. Her husband couldn't sleep in the same room as the breathing machine, which produced what Keeler describes as "white noise [that] at first seemed pretty minor. But as the night wore on, the sound seemed to increase in intensity."

Luckily, Keeler's sleep physician was Greg L. Schumaker, an assistant professor of medicine at Tufts. He referred her to the dental school, where she met Correa. After conducting a complete clinical exam and choosing from among the 70 corrective

Though sleep apnea didn't appear in the medical literature until 1965, the sleep disorder has probably been around a long time. OSA was once known as "Pickwickian syndrome," after the character Joe in Charles Dickens' first novel, The Pickwick Papers. Joe's obesity and tendency to fall asleep at odd times throughout the day are consistent with symptoms of OSA.

Carrying extra fat—and even muscle, in the case of some athletes—around the neck can put pressure on the throat tissues, especially for shorter-necked people, and cause obstructive sleep apnea. Aging, too, causes the tissues to lose tone, making them more likely to sag and block the airway while in repose. "We used to think nothing of snoring. Now we know it's a risk factor for apnea," says Mehta.

On top of that, sedatives such as alcohol or prescription drugs can cause further slackening of the upper airway tissues. Three years ago, Tim, who asked that his last name not be used, was drinking too much and gaining weight. His wife's complaints about his snoring, more than his chronic sleepiness, eventually sent him to a sleep clinic in New Hampshire, where the 54-year-old was diagnosed with moderate sleep apnea. Like Keeler, Tim couldn't get used to the CPAP device. "Well, I tried it, but I couldn't tolerate it," he says. "The mask fell off constantly, no matter how many times I had it adjusted."

Eventually, his doctors referred him to Tufts Dental School and Correa, who fit Tim with a two-piece mouth guard that holds his lower jaw slightly forward while he sleeps. Right away, Tim says his nighttime breathing began to improve.

As anyone trained in CPR knows, pulling the lower jaw forward automatically opens the upper airway. However, this repositioning of the jaw can also irritate the temporomandibular joint, or TMJ. Over the course of a year, Tim visited Correa every two or three months for tiny adjustments to the mouth guard, a process known as titrating the appliance. "There was some initial drooling," Tim reports. "But the body adjusts over time. I'm very used to it now."

Maybe it was his improved quality of sleep. Maybe it was visiting doctors' offices so frequently—Tim can't say—but sometime during his treatment, he quit drinking and lost 40 pounds. Today, Tim reports he feels great, sleeps soundly and is never drowsy during the day. His nights of exile to the living room sofa are over. "I'm back upstairs with my wife," he says.

Lifestyle changes like Tim made should be the first line of attack in treating sleep apnea. But they won't work for everyone with a snoring problem or daytime sleepiness. "Years ago, only obese persons were considered likely to have OSA," says Correa. "Recently we've been seeing that's not always the case. It can be based on certain anatomical features."

Certain physical characteristics—such as having small lower and upper jaws or a large tongue positioned relatively far back in the mouth—can increase the risk for developing sleep apnea. These are some of the things Correa, who sees about 100 apnea patients each month, looks for in all his new patients, even those who don't come in complaining about OSA-related symptoms.

Jeffrey R. Prinsell, D79, who also is a physician, says about a quarter of his oral surgery practice in Marietta, Ga., is dedicated to helping apnea patients get a good night's sleep. Prinsell is a founding member and former president of the American Academy of Dental Sleep Medicine (AADSM) and founding president of the American Board of Dental Sleep Medicine, which was established in 2004 to certify dentists who treat sleep-related breathing disorders.

"Tufts is a pioneer," says Prinsell of the Dental Sleep Medicine Program. Prinsell and Correa were members of the AADSM curriculum committee that developed sleep medicine courses that any dental school

"We used to think nothing of snoring. Now we know it's a risk factor for apnea."

—Noshir Mehta

could implement. Correa used those courses as a framework for the Tufts sleep dentistry curriculum. "It is definitely something other schools will want to adopt," Prinsell says.

As with Correa's obstructive sleep apnea patients at Tufts, the vast majority of Prinsell's patients respond well to some combination of the CPAP device plus oral appliance therapy. But about 10 percent have apnea so intractable that surgery is the only solution. For these patients, Prinsell can remodel nasal passages, adjust the jaw and even reposition the tongue. Other patients may need their tonsils removed. Tufts Dental School's oral and maxillofacial surgery department offers surgical treatment for apnea patients as well.

While these remedies may sound

extreme, Prinsell points to the disastrous effects sleep disorders can have on the quality of life. "These patients are extremely tired; their performance at work suffers; they lose their libido; their bed partners leave them. And if [the sleep apnea] is left untreated, these people could die at night in their sleep," he says.

#### RESTLESS NIGHTS. DAYTIME HAZARDS

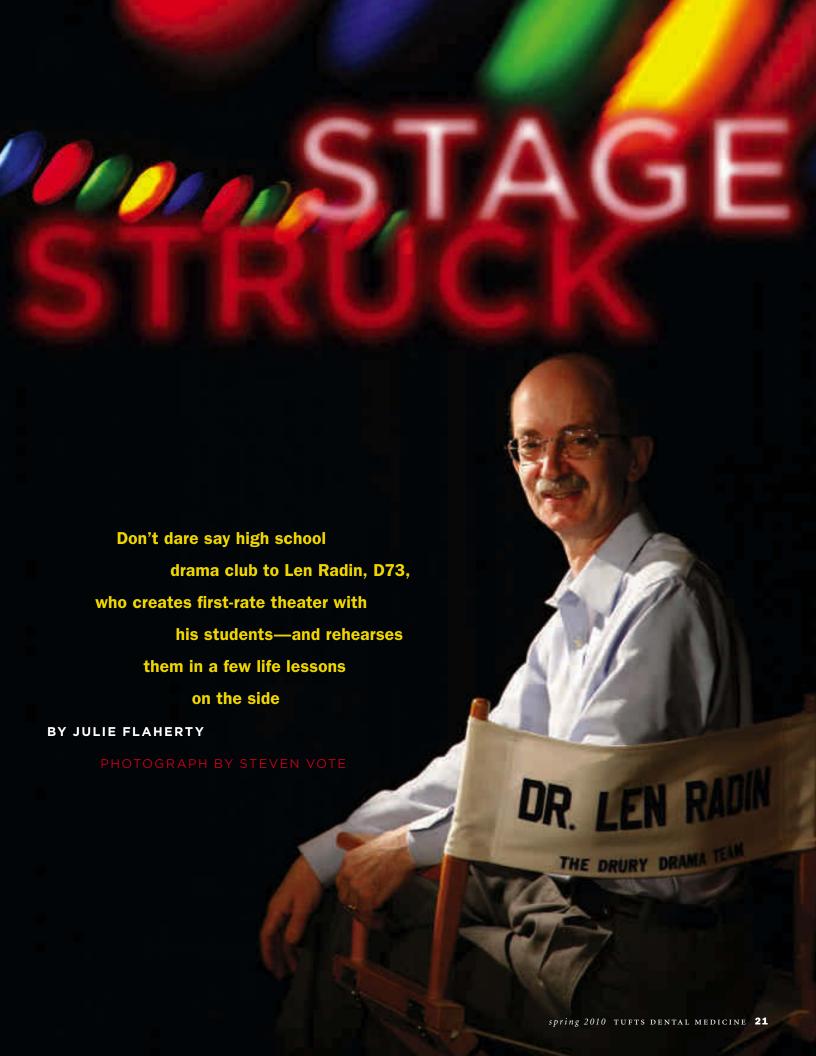
Prinsell also wonders how many industrial mishaps might be caused by undiagnosed sleep apnea. A 2006 Institute of Medicine report, "Sleep Disorders and Sleep Deprivation: An Unmet Public Health Problem," found that daytime hypersomnolence costs \$150 billion each year in accidents and lost productivity and another \$48 billion in medical costs related to auto accidents involving sleepy drivers. The IOM report also found that 20 percent of all serious car accidents are caused by sleep-deprived drivers—not alcohol. "It's very important we get some sort of treatment that lets these people function," Prinsell says.

Dentists Against Drowsy Driving, a public health campaign launched by the American Academy of Dental Sleep Medicine in November 2008, is designed to raise awareness among health-care practitioners and the public about this underdiagnosed and life-threatening condition.

But, says Prinsell, the dental sleep medicine academy has just 1,800 members, a vanishingly small proportion of the 160,000 dentists who are members of the American Dental Association. "There are just a handful of us doing it," he says, "so Tufts' program is very promising and very exciting. Increasing the number of trained professionals who can help with this very common problem will help with the manpower shortage."

"We pride ourselves that Tufts led the way in many different specialties," says Mehta, the Tufts faculty member. "Dental sleep medicine is another place for us to be on the leading edge, both clinically and educationally." TDM

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T'S A MONDAY AFTERNOON AT DRURY HIGH SCHOOL IN NORTH ADAMS, MASS., and Len Radin, D73, is doing some scene work with the Drama Team. They are rehearsing a short comedy, about a series of impossibly dreadful blind dates, including absurd rendezvous with a kleptomaniac, a schizophrenic, and worse yet, a mime. This is melodrama, Radin reminds his students. Don't try to be subtle.

"The only way it's going to be believable is if it's not believable," he says as the students nod sagely.

One scene, in which a young woman storms out on a particularly oblivious suitor, isn't quite working. "Can somebody get some water in a cup?" Radin asks. Armed with a real drink, the teenage actress works up the frustration to douse her date, and bingo, everyone agrees that it's the best try yet.

It's a bit uncanny how a slight man with a bald pate and glasses can hold the attention of a group of teens for a three-hour class. "Doc," as everyone at school calls him, has run a dental practice in North Adams for 36 years. But the students rarely think of him in that role. To them, he is their teacher, their director, the man who makes the Drama Team possible.

"I emphasize very, very strongly that we do not have a drama C-L-U-B," Radin says, as if spelling out a dirty word. "High school theater sometimes gets a bad name because it's an extracurricular C-L-U-B, and it looks very amateurish. And we're not. We're a professional ensemble, and we set the bar very high."

Whether performing Shakespeare, the Wizard of Oz or an original work about gays and lesbians in high school, the Drury Drama Team has a reputation for polished acting and stellar production values. As many as 2,000 people will attend a production. "The students are really doing something of value, something that they are proud of," Radin says.

Were the standards lower, the Drama Team might not have such a powerful effect on the students, or have changed the culture of the high school in quite the same way.

#### WANTED: POSITIVE **RISK-TAKERS**

Radin came to the high school 22 years ago, as a volunteer. He had been directing and performing in community and professional theaters his whole life, and he decided it would be fun to work with teenagers. He could also see that North Adams teens needed something to get excited about. The city's largest manufacturer, Sprague Electric, had closed down. Unemployment was in double digits, and discouraged young people were moving away from the city in the northwest corner of Massachusetts.

When Radin approached the English Department faculty about doing a short play with the students, they consented, but with some reservations. "Don't be discouraged if the program kind of peters out," they told him.

Debbie Coyne, who taught English at the time, had a class she diplomatically describes as "non-achievers who were not happy about being in school." When she told them they were going to put on a play, "they looked at me like I had lost my mind," she says.

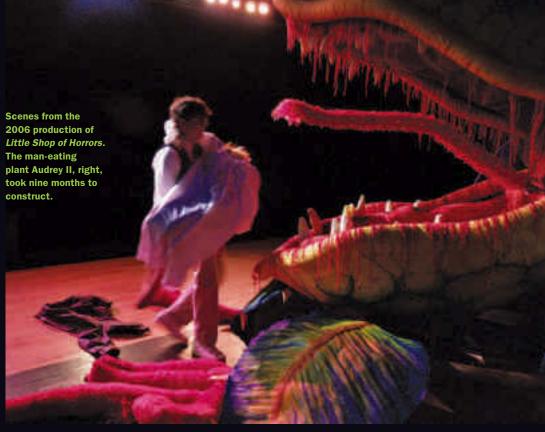
But soon she and the other teachers saw a change: students were not getting kicked out of school as often. "I think you could track it," Coyne says. "Kids would talk about it: Well, I can't get suspended today because we've got an important rehearsal."

Radin got more than the aspiring actors involved. For every production, he assigns jobs in makeup, electronics, carpentry, stage design, props and other technical roles. Part of the draw of the Drama Team, Radin says, is that unlike math or English, "everybody, to some extent, could be good in theater."

With each production—The Diary of Anne Frank, the Miracle Worker, Our Town—participation grew. Radin went from heading an extracurricular activity to teaching a full-credit course, and then two courses, in the newly created Theatre Department.







# "I AM USING THEATER AS A VEHICLE TO HELP MANIFEST THE INTRINSIC TALENTS OF MY STUDENTS. NO MATTER WHAT THEY GO INTO, THEATER IS ADDING TREMENDOUSLY TO THEM IN MANY DIFFERENT WAYS." —LEN RADIN



ABOVE: For *The Wizard of Oz*, Radin managed a cast of more than 100. RIGHT: A scene from *Our Town*.



To get onto the Drama Team, students have to audition. But instead of having them read lines from a script, Radin asks them to take part in a group improvisational exercise.

"I'm not looking for experience, not even talent, whatever that is," he says. "I'm looking for people who are willing to risk in a positive way, who are willing to share their emotions with the audience, who are willing to work in an ensemble.

"This is the one place in high school we tell them it's OK to express yourself; it's OK to be different, to be strange," he continues. "We are a team, a family. Feeling that they are in a safe environment, they could go up on stage and say and do anything they want, and they know they have support."

In what other class could you dump water on a classmate, scream at the top of your

going on in their life; he likes to know how their grades are; he wants to know who these people are."

Theater, Radin says, becomes a way for students to connect with school and succeed. For some students, the Drama Team is a game changer. About 15 years ago, Radin had a student who abused drugs and alcohol, so much so that at the beginning of his senior year, he broke into Radin's dental office and stole a tank of nitrous oxide. (He was so intoxicated at the time, Radin recalls wryly, that he didn't notice the trail of blue paint he left on the sidewalk as he dragged the tank to his home, where police apprehended him.)

The student faced five years in jail, but the judge asked Radin what he thought should happen. "I said, 'Well, I want my nitrous oxide back,' " Radin says, " 'and I pursuits outside of dentistry, be it photography or music. He was drawn to dentistry in part because, as with crafts like scenery building and makeup, he could use his hands.

"Dentistry takes a constellation of talents that are not just intellectual," he says. "And I think if you have that broad constellation of talents, you're going to have multiple interests."

And Tufts as a whole, he has come to discover, cultivates that constellation. As part of the Tufts Alumni Admissions Program (he's currently chair of the Berkshire County committee), he has interviewed more than 200 prospective undergraduate students. "Part of what makes Tufts great is the students—very eclectic, broad-minded, talented, interesting students," he says.

But it has become clear over the years that many people don't expect Radin to

> have such an eclectic set of talents. When people at theater conferences hear that he works in oral health, "invariably they say something that annoys me a little bit: Oh, so you're really a dentist. Even my mother says that."

> Yet he pursues both occupations with the same professionalism. Take Audrey II, the giant,

man-eating plant that puts the horror in Little Shop of Horrors. Radin scoffed at the plant available for rent ("a stuffed toy," in his opinion) and asked two local artists to create something original for the Drama Team production. It took nine months to make Audrey II, and six puppeteers to work it, but it was Broadway quality.

In 1995, he established the Yankee Thespian Festival, an annual event for theater students and teachers from New England, New York and parts of Canada. He served as director of the Massachusetts Educational Theatre Association for 11 years. He has won several awards, including a Points of Light award from the governor, but his biggest honor was being selected by his drama teacher peers in 2000 to be in the national Educational Theatre Association's Hall of Fame.

In some ways, it is the flexibility of a dentist's schedule that makes his theater work possible. During a typical week, he spends two days at the school and three in his dental

# RADIN'S OTHER JOB DOESN'T COME UP MUCH, UNLESS HIS PAGER GOES OFF **DURING RÉHEARSAL AND SOMEONE** PIPES UP WITH, "UH OH, DOC HAS TO DO A ROOT CANAL!"

lungs or cut off all your hair? Luke Sisto, 15, who played the madman Renfield in last fall's production of Dracula, was committed enough to his character and comfortable enough with his cast mates to let them shave his head, to better suit the role.

"It's an enclave where I can escape at the end of the day," Sisto says, pointing out, unnecessarily, how harsh and judgmental high school can be. "It's just an eclectic group of people, completely different from one another, and yet we get along with each other, and we learn—for the most part."

Radin's other job doesn't come up much, unless his pager goes off during rehearsal and someone pipes up with, "Uh oh, Doc has to do a root canal!" But even new team members, like Emilee Nicholas, 14, recognize that he puts a lot of time and effort and money from his own pocket—into the team, "something that he didn't have to be doing," she says.

"He's amazing, he really is," she says. "Every student, he wants to know what's

want to see him come back to the Drama Team and prove he can stay sober until he graduates.' "

He did, and even turned in a memorable performance as Mercutio in Romeo and Juliet. "It really turned him around," Radin says, speaking about the magic of theater as if there actually is a supernatural force helping things along.

CONSTELLATION OF TALENTS Radin has been doing theater of some sort for 50 years now, from the marionette troupe that he started with his family when he was in high school to starring in the romantic comedy Same Time, Next Year.

"The only years I was not in theater," he says, "were the four years that I was at Tufts." But he relishes those years of dental school. After attending the large University of Massachusetts as an undergraduate, "at Tufts, it was like one big family," Radin says. "I really came out of myself socially."

Many of his classmates had passions and

office. When he is fully involved in a production, he can cut down on his dental appointments, while during the summer, when school is out, he can catch up on his caseload.

But two years ago, things weren't balancing so well. Every year, as the shows grew more ambitious, Radin was spending longer days at school. And while money has never been a motivating factor for him and his wife of 35 years, Darlene, theater was taking its toll on their income. Radin went to the school superintendent and told him he would have to retire.

"I was very depressed because I said this is such an important, fun, satisfying part of my life," Radin said. "I was sure that the administration was going to say that's really too bad, we'll be sorry to see you leave. Instead he said, 'No, you can't go.' "

The next day, he was hired as the theater coordinator for the North Adams Public Schools, with a small salary, health benefits and enough funding to hire two Drama Team alumni to teach drama in the lower grades.

Although many of his former students are still involved in community or semiprofessional theater, Radin says he isn't trying to create professional actors. "I am using theater as a vehicle to help manifest the intrinsic talents of my students. No matter what they go into, theater is adding tremendously to them in many different ways."

One has only to look at his three daughters, who served as his costume designer, piano player and model for stage makeup experiments while they were growing up. Now one is a college teacher; one develops educational programs for deaf and blind children in Alaska, and this year, daughter Katie-Rose Radin Wagner will do a GPR at Tufts Dental School.

They've gotten used to the annual series of emotions Radin goes through. "Usually a week before a play, I call up my daughters, and I say this year it's not going to work," he says. "And they say, 'Dad, you say that every year.' I say no, this year in particular, it's not going to work."

Yet somehow, the show always goes on. "And it's magic," he says. TDM

Julie Flaherty, a senior health sciences writer in Tufts' Office of Publications, can be reached at julie.flaherty@tufts.edu.



When Len Radin, D73, decided that last fall's Drama Team production would be the gothic horror Dracula, he instantly thought of one thing: fabulous, fearsome, functional fangs.

That's not the reason he chose the play (or so he claims), but he admits a voice in his head did say, "Wow, I could really make those look good."

Radin takes stage makeup as seriously as character development. Some years ago he even interned for a week on Broadway with the legendary hair and makeup designer Bob Kelly. But this was a job that would challenge all his skills as a makeup artist, and a dentist.

First he had to consider the fact that she-vampires tend to have smaller mouths than he-vampires. "Normally when you think about Dracula, you think about the canines being longer. In men, that's possible. But in women, if I did the canines, you wouldn't see them." For the young women cast as Dracula's vixens, building up the lateral incisors made more sense.

Then he looked at the thermoplastic material that costume stores sell for that purpose, the kind you put in hot water and then push up against your teeth.

"It's fine for Halloween, but you can't articulate with that," Radin says. "It's a whole bunch of material in your mouth." Dracula, in particular, has a huge number of lines, and I wampt to thuck your blub wasn't going to cut it.

In the end, Radin used his own dental-grade methyl methacrylic and built it out directly on the teeth. "Then I very carefully relined it, reduced the lingual and made really good margins," he says. The cast members would have to wear their fangs through several performances, and he didn't want them getting gingivitis. (He employed a slightly different procedure using composite resin-for the photo, above, he took for the poster advertising the play so the tooth shading would be more natural.)

Because the vampires needed to not only talk, but jump, fight and yes, bite, Radin supplied them with plenty of denture adhesive. Voilàremovable, realistic fangs that last through multiple killings.

-JULIE FLAHERTY



# Living with MS

My race to beat this disease is measured in big hopes and tiny steps

BY MICHAEL SUDDATH, D85

NOTICED SOMETHING WAS NOT quite right in spring 1998, while I was training for the Marine Corps Marathon. Nothing alarming an occasional stumble, a loss of balance, which I attributed to a lack of physical conditioning.

I'd always wanted to see if I could run 26.2 miles. The Marine Corps course, in Washington, D.C., is fairly flat, good for a first-time marathoner, and I thought the training would help me work off the stress of managing my growing general dentistry practice. I'd also decided to use my big-run debut to raise money for the WhitmanWalker Clinic, which provides medical services and support for the AIDS community of Greater Washington.

I finished the marathon that fall, in five hours and fifty minutes, and started training for the 1999 race the following spring. But my physical awkwardness persisted. Sometimes I would miss a curb, and my gait just wasn't the same. Ultimately, I had to choose between running and caring for my patients full-time.

Finally in 2001, nearly three years after those less-than-alarming symptoms first appeared, my partner, Dennis Bourgault, urged me to see a doctor. By then, just

walking longer distances was exhausting if I didn't stop and rest. My brother, a cardiologist, convinced me to see one of his medical school classmates, a neurologist, who ordered an MRI and a spinal tap. After three years of not knowing, I decided I couldn't wait a week until my next appointment for the test results. I asked the radiologist to fax the report to my office.

These five words I will never forget: "demylination consistent with multiple sclerosis." The nerve cells in my brain and spinal cord weren't communicating properly because my own body was destroying the fatty myelin that protects those nerve fibers.

Where did that come from? No one in my family had MS, an autoimmune disease. How could this be? Somehow I managed to suppress the dread that throbbed in my gut, and get through the rest of the day's appointments. At home, I shared the news with Dennis. Together we decided that however difficult, we needed to move beyond the diagnosis and focus on how to treat this disease. I was about to embark on a different kind of marathon, along a circuitous course that would cross an ocean and many time zones.

I have what is known as primary progressive MS, which affects about 15 percent of the 400,000 Americans who are living with this disease. What that means is that the primary symptom, loss of the use of the legs, progresses over time. And even though science is working to solve this riddle, there is no cure.

Over the next three years, I was prescribed an array of the standard medications used to manage MS: first Solu-Medrol, a corticosteroid, and then the immune-modulating drugs Betaseron, an interferon, and Copaxone, both of which are supposed to ease the symptoms. Nothing worked. I went to see a neurologist at Vanderbilt University who was using a combination of antibiotics to mitigate the disease. I tried that for a year, but again, no change. And I worried about the side effects of taking so many antibiotics.

I reduced my work schedule to 20 hours a week and hired an associate to help care for my patients. Before my symptoms began, I had been negotiating with another dentist in my office complex to take over his practice when he retired, and I had started construction on a new office. But by 2004, as I was navigating myriad treatment protocols for MS, I had no choice but to sell my practice and retire from dentistry. It was disappointing to have to leave a career I had put so much into, but I was also relieved about not having to manage everything on top of this disease.

Looking for something, anything, that would offer some hope, Dennis and I began to search for alternative treatments. We scoured the Internet and discovered that stem cells were being used, with some success, to treat a number of neurological diseases, including MS, which did not respond to the standard pharmaceuticals. But there was one huge obstacle: Although autologous and placental stem cell transplants were being performed at medical centers throughout the world, such therapies had not undergone the required clinical trials to gain approval in the United States, where stem-cell research has been politically contentious. (New National Institutes of Health guidelines released in July 2009 removed for my procedure to be done in Greece.

My hopes were now focused on a date, September 22, 2009, and a place, Athens General Hospital.

Sightseeing proved a reasonable antidote to the anxiety of not knowing how all of this would turn out. After my bone marrow was harvested in Tel Aviv, Dennis and I drove 30 miles north, to Jerusalem, to tour the Holy

### The theory is that once the stem cells are injected into the cerebrospinal fluid, they travel to the damaged nerve tissues and begin to repair them.

barriers to the responsible use of human embryonic stem cells in research.) Needless to say, American health insurance covered none of what I was about to do.

My apprehension over pursuing experimental medicine half a world away was assuaged somewhat because I had been in touch with other MS patients who were also looking into stem-cell therapy. I decided to go to the International Center for Cell Therapy & Cancer Immunotherapy in Tel Aviv, Israel, which was founded by Dr. Shimon Slavin, a former stem cell researcher at Hadassah University Medical Center in Jerusalem. In June 2009, Dr. Slavin harvested mesenchymal stem cells from my bone marrow in preparation for an autologous stem cell transplant that just might slow the progression of my disease. The theory is that once the stem cells are injected into the cerebrospinal fluid, they travel to the damaged nerve tissues and begin to repair them.

I remembered from my basic sciences studies at Tufts that stem cells are pluripotent, meaning they can morph into any type of cell. Why then, I asked Dr. Slavin, can't the body just recruit stem cells from the marrow to repair the damage? Science hasn't come up with an answer for that, he said. But when the stem cells are allowed to grow in culture for three months and then injected back into the spinal fluid, it sometimes helps alleviate the nerve damage caused by MS. But because this treatment is relatively new, Israel has not approved it, either. So Dr. Slavin made arrangements

Land. Before the stem cell transplant in Athens, we saw the Acropolis and the temples of Zeus and Athena, as well as the Byzantine Museum and the new Acropolis Museum, a breathtaking glass and concrete building with views of the ancient Parthenon.

The procedure to inject the colony of my mesenchymal stem cells into my spinal fluid was surprisingly anticlimactic, just an overnight hospital stay for monitoring. The doctors in Athens said it would take several months for my stem cells to differentiate into oligodendrocytes—the cells that produce the nerve-insulating fatty myelin that MS destroys—and hopefully slow the damage that had already occurred. In Greek, oligodendrocyte means "cells with a few branches." I returned to D.C., hopeful those branches would bear fruit.

"Let us run with patience the race that is set before us," the Book of Hebrews says. Six months have passed since my stem cell transplant. I've noticed some subtle improvements, and I embrace each tiny increment. I take medication to control my muscle spasms, and do physical therapy to maintain my strength. And I remain patient, always patient, awaiting the breakthrough that will lead to a fuller understanding of this disease, and perhaps a cure. TDM

Michael Suddath, D85, and his partner, Dennis Bourgault, F88, are the owners of Chateau-Animaux, an upscale petsupply store on historic Barracks Row in Washington, D.C.

# Presidential Search

#### Bacow to step down in 2011, after leading Tufts University for a decade

AWRENCE S. BACOW, WHO HAS ADVANCED TUFTS UNIVERSITY'S leadership in teaching, research and public service, while championing access to higher education, announced at the February 5–6 meeting of the university's board of trustees that he would step down in June 2011.

Bacow took office as Tufts' twelfth president on September 1, 2001. From the aftershocks of 9/11 to the economic challenges of the recent recession, he has consistently led the university according to the fundamental principle that he outlined in his seminal essay "A University Poised"—that all decisions should be based on what would help Tufts "to attract, recruit, and retain the very best students and the very best faculty."

In announcing his decision in a message to the university community, Bacow noted, "I have often said that ten years is about the right term for a university president. It is long enough for one individual to have a substantial impact but not so long that the institution, or the president, becomes comfortable."

James A. Stern, E72, A07P, chair of the board of trustees, said, "Larry Bacow has been unwavering in his commitment to educational excellence, and Tufts has truly prospered under his watch. Time and again, people have put their faith in his vision for Tufts' future, and he has not let them down."

During Bacow's tenure, Tufts built on its historic strengths to enhance the undergraduate experience, deepen graduate and professional education and critical research, broaden international engagement and foster active citizenship throughout the university. At the same time, the student body became measurably stronger and more diverse.

Tufts also made significant financial progress, raising more than \$1 billion for its current \$1.2 billion Beyond Boundaries campaign. The university's endowment grew by nearly 86 percent from 2002 through December 2009, to \$1.26 billion. Bacow established an office to manage university investments.

Bacow has been nationally recognized as an advocate for increasing access to higher education. As other institutions began

> expanding merit aid to gain an edge in competing for the most talented students, Tufts never wavered in its commitment to need-based financial aid for undergraduates. "It is far from





clear to me how society is better off when scarce financial aid resources are diverted from the neediest students to those who are not needy by any measure, simply to redistribute high-scoring students among our institutions," Bacow told the Secretary of Education's Commission on the Future of Higher Education in 2006.

Since 2001, Tufts has increased financial aid for undergraduate, graduate and professional students by almost 94 percent. In 2007, the university replaced loans with grants for undergraduates whose family income was below \$40,000 a year. The following year, Tufts launched the first university-wide program in America to ease the debt of graduates pursuing careers in public service and the not-for-profit sector. The university has maintained its commitment to these programs despite the financial downturn.

The university has also strengthened its relationship with its principal teaching hospital, Tufts Medical Center. Under Bacow's leadership and in collaboration with hospital CEO Ellen Zane, a strong partnership was formed that brought the hospital and Tufts School of Medicine closer together.

Bacow is known for his transparency and accessibility. The annual President's Marathon Challenge he established in 2003 brings members of the Tufts community together to run and volunteer at the Boston Marathon. He has completed five marathons, including four in Boston, where he

has led the challenge team. The marathon challenge has raised \$2.4 million through direct fundraising by Tufts runners, and has also garnered two \$5 million gifts in support of nutrition and medical research and education. The annual race has also provided countless opportunities for students, faculty and staff to talk informally with the president during early morning training runs. Bacow regularly serves as an adviser to first- and second-year undergraduates, and initiated Senior Dinners where all graduating seniors are invited to his home on campus. Graduating students' chants of "Larry, Larry" have become a tradition at annual Commencement ceremonies.

"It has been a great privilege to lead Tufts for these past nine years, and I look forward to working with the board to ensure a smooth and successful transition to the next president," Bacow said. "There will be plenty of time over the next sixteen months to reflect upon the past and say goodbyes. For now, I am focused on the future, on completing the Beyond Boundaries campaign and on working with each of you in the months ahead to make Tufts an even better place."

A presidential search committee, headed by Peter Dolan, A78, A08P, vice chair of the board of trustees, was named in late February. The committee will work with



Left: President Bacow with Dean
Lonnie H. Norris in an open stairway
of the newly expanded dental school
building. Above: A presidential hug for
Anjali Nirmalan, A09, G10, winner of
the Wendell Phillips Award, given to
an undergraduate for public speaking
and civic responsibility.

the executive search firm Isaacson Miller, which led the search that culminated in the selection of Bacow in 2001. "There will be opportunities for the Tufts community to meet with the committee and provide comments on the university's future directions and the leadership qualities most important for our next president," said Stern, the trustee chair.

In addition to Dolan, the managing director of PRDolan LLC and former chairman and CEO of Bristol-Myers Squibb, members of the search committee are:

- Julian Agyeman, professor and chair of urban and environmental policy and planning, School of Arts and Sciences
- Carla E. Brodley, professor of computer science, School of Engineering
- Barbara E. Clarke, J88, president-elect, Tufts University Alumni Association, and national director of the National Alliance for Grieving Children
- Sarah F. Habib, A11, a junior majoring in American studies
- Bernard Harleston, H98, a trustee emeritus; president emeritus, City College of New York; and a former faculty member and dean of the faculty of Arts and Sciences at Tufts
- Philip G. Haydon, the Annetta and Gustav Grisard Professor and chair of neuroscience, School of Medicine
- Deborah R. Jospin, J80, a university trustee; partner and co-founder of sagawa/jospin and former director of AmeriCorps
- Deborah T. Kochevar, dean, Cummings School of Veterinary Medicine
- Brian K. Lee, A08P, A11P, vice president for University Advancement
- Kathleen A. McCartney, J77, university trustee and dean of the Graduate School of Education, Harvard University
- Neal B. Shapiro, A80, university trustee and president and CEO, WNET.ORG
- Alfred I. Tauber, A69, M73, a university trustee; the Zoltan Kohn Professor of Medicine, Boston University School of Medicine, and professor of philosophy, College of Arts and Sciences, Boston University

>>> For updates on the presidential search: http://presidentsearch.tufts.edu.



# To Top It Off

A celebration of the 'new' Tufts Dental School by Jacqueline Mitchell

REATHTAKING IN ITS NEWNESS AND WITH DAZZLING VIEWS OF the Boston skyline, the expansion of Tufts University School of Dental Medicine in one of the city's most densely populated neighborhoods was celebrated during dedication ceremonies on November 20. "It makes me want to go back to dental school," Seth Paparian, D86, said of the project that added five floors and 95,000 square feet to the school building at One Kneeland Street in the heart of Chinatown. Paparian was hardly the lone alum who wanted to turn back the clock on his dental education. "I wish the rest of my class could be here, and I wish I could go back to

school," said Warren Woods, D78, D12P.

With the late afternoon sunlight streaming through the floor-to-ceiling windows, Dean Lonnie H. Norris, DG80, welcomed nearly 1,200 friends, neighbors, alumni, students, faculty, staff and other members of the Tufts community to the dedication on the building's new 10th floor, a shell space that will remain unfinished to accommodate future growth.

"A mere 18 months ago, in May of 2008, if you had been sitting where you are right now, you would have been outdoors on the roof," Norris said of the building, which now stands 15 stories. "This shell space represents our potential. Tonight's celebration is not an end point, but a continuous



part of the dental school trying to make itself better."

Norris' opening remarks set a tone for the celebration that lasted well into the night. The dean presented three individuals with the Dean's Medal, the school's highest honor, in recognition of their generosity and commitment to the \$68 million expansion project: Louis Fiore, D62; Suzi Osher, the widow of Alfred Osher, DG62; and Mark Gonthier, associate dean of admissions and student affairs, who led numerous tours of the construction site and kept the school's 800 students apprised of the progress of the work.

Careful choreography during the 18-month construction project meant that students' education continued uninterrupted, and the school clinics continued to treat 500 patients each day.

In his remarks, Tufts President Lawrence S. Bacow took a moment to tip his hat to the architects and construction workers "who do not get enough credit for the work that they do." He compared the expansion of an occupied building in the middle of downtown Boston to "assembling a Swiss watch, in a ship, in a bottle." The addition, which was designed by ARC/Architectural Resources Cambridge and built by Shawmut Design and Construction, was nominated for a Building of America Award, in part because of the complexity of expanding a skyscraper in a congested urban neighborhood.

Bacow also thanked the university's Boston neighbors, students, staff and faculty for their patience and alumni and donors who "helped make this happen during not the easiest of times. Generations to come will benefit and be served by those educated here."

The result is an education and oral health-care facility, Norris said, that will advance the school's mission of teaching, research and patient care.

In keeping with the school's longstanding commitment to care for the underserved, the addition has 73 new treatment areas to accommodate 20,000 patients a year, many of whom have limited or no dental insurance.

#### LUCK OF THE LION

With Red Sox Hall of Fame left fielder Jim Rice on hand, members of the Boston Chinese Freemasons Athletic Club performed a traditional Chinese lion dance, meant to drive away bad spirits and bring good luck and fortune to those who enter the building. Then guests were free to explore the spacious and bright new clinics and classrooms on the 11th, 12th and 14th floors. Bottles of wine and sparkling water peeked over what are now patient reception desks; bunches of brown and blue balloons brightened every hallway, and live band music accompanied the celebration.

Fittingly, a jazz trio played in Rachel's Amphitheater, the 75-seat lecture hall on the 14th floor. The space was funded

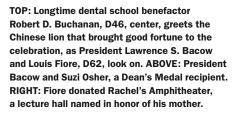
by Louis Fiore, the Dean's Medal recipient, who named it in honor of his mother. Fiore decided he wanted to be a dentist when he was in the seventh grade. His mother, who worked in a carpet factory to support her five children, bought Louis a saxophone. He paid his way through college and dental school by playing that sax four nights a week. "I never forgot her," Fiore said of his mother, who died when he was 16. "I can see the smile on her face [if she were here tonight.] Her eyes would be sparkling."

Across from the amphitheater is the 108-chair simulation learning center, where realistic mannequin heads sit in rows with their anatomically correct mouths agape. Gary Archambault, D79, A10P, recalled with a laugh the "sim clinics" of the 1970s—metal posts with false teeth clamped to them. With no automatic blower to clear the dust from drilling, Archambault said he acquired the habit of blowing on the practice teeth—a habit he had to unlearn when he started working with real patients.

That's not something future grads will have to worry about, said John Giunta, A58, D66, DG70, who taught oral pathology at Tufts from 1970 to 2002. "The sim clinic is an impressive thing," he marveled. "Totally impressive."







"It's open, modern, bright. There are beautiful views of the city," said Kelsey Evelyn, D05, DG07.

The marvelous panoramas, courtesy of 1,700 new window panes, are more than eye candy. The windows are designed to bring more light into the building's interior, saving energy and adding to the sustainable design. The building conforms to LEED (Leadership in Energy and Environmental Design) standards, the nationally accepted green building model.

Campo Perez, a postgraduate student in periodontology, says the new space will translate into better patient care: "The view will help patients feel more at ease. And we'll feel more relaxed, too,"

Jacqueline Mitchell, a senior health sciences writer in Tufts' Office of Publications, can be reached at jacqueline.mitchell@tufts.edu. To watch a video on the history of the School of Dental Medicine and the new facility, see http://go.tufts.edu/vei.

# Research Rules

Forget the fancy marketing. When it comes to patient care, take your cues from the science by Julie Flaherty

T IS A FACT OF THE PROFESSION THAT DENTISTS ARE MARKETING targets. A well-designed ad with artfully crafted prose may tout a product or procedure as immensely successful, even though that may not be true.

"It's easier to listen to an ad that is done in a fancy way than read an article that would actually provide the evidence that product A is really not working as well as B," said Hans-Peter Weber, the

new chair of the Department of Prosthodontics and Operative Dentistry. "Always be on alert that what the company might say, or the ad might say, does not mean that it has been scientifically evidenced."

And evidence should be a guiding principle of care giving, Weber said, the proof that "somebody has done a decent amount of research on something to say 'this works."

Weber gave the keynote address in February at the 2010 Bates-Andrews Research Day, the school's annual showcase of pre-doctoral and postgraduate research. Speaking in Rachel's Amphitheater, on the new 14th floor

of the dental school, Weber emphasized to the young researchers that the studies they do can and should make a difference in how dentists care for their patients. Weber, who has published extensively on implants and is the co-editor of the journal Clinical and Oral Implant Research, outlined how dental implant technology—perhaps the last century's biggest breakthrough in the treatment of tooth loss—has evolved over the last few decades because of research.

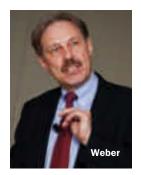
Some of the first implants, which used stainless-steel blades, were heavily advocated by some private practitioners but never by academics. These were later revealed to have success rates of less

**Hubert Park, D11, talks about** his oral cancer research with Arthur Weiner, D58, professor of general dentistry.

than 50 percent. "That's just not good enough," Weber said. "It never became a success, never a method any dental school would teach its students."

It wasn't until the Swedish orthopedic surgeon Per-Ingvar Brånemark discovered in 1952 that bone would grow around a titanium implant—a phenomenon now known as osseointegration—that implants seemed like a serious solution for edentulism. Brånemark made a number of recommendations on how implants should be placed, but "not all of those were based on clinical and translational research," Weber said. And indeed, further research has come up with better standards.

For example, where it was once thought that several implants were needed to secure a prosthesis in the mouth—a potentially costly procedure for a patient—subsequent studies have shown that two implants are often sufficient for holding a denture in



"Always be on alert that what the company might say, or the ad might say, does not mean that it has been scientifically evidenced." —HANS-PETER WEBER

place. "This has really become—from a prosthodontic point of view—the standard of care," Weber said.

Experimentation led to a number of other discoveries. Etching, blasting and oxidizing the surface of the titanium implant to create a moderately rough surface, or coating it with a biostimulant protein, meant that bone precursor cells would settle closer to the implant surface, creating a tighter bond.

Other studies, including Weber's own, have looked at the healing time needed between implant surgery and the attachment of the prosthetic teeth. "The healing time of three to six months was, for

> many patients, too long," Weber said, and rather than go without teeth for that time, patients would opt to have their old dentures repaired, which could be done in a month.

> But several studies have shown that speeding up the process, to as little as eight weeks, does not interfere with development of a bond between the jaw bone and the implant. "Early loading has not changed the predictability of osseointegration," Weber said, "and this research has been done by various groups across the world."

> Weber has translated those findings into the care he gives in his own practice. One patient, a man in his 80s, was reluctant to let Weber place implants to secure his bridge because of the inconvenience. But based on the science, "we didn't have to wait three months to get him comfortable again," Weber said. "These two posts have really made his life better."

#### 2010 BATES-ANDREWS AWARDS

Best Postgraduate Poster Presentation (cash prize donated by Jess Kane, David Tesini and Nancy Jo Soporowski) Ala Darrat, "The Influence of Timing of Coronal Preparation on the Retention of Translucent Glass Fiber-reinforced Composite Resin Posts and Composite Resin Cores Cemented with Two Different Cements"; faculty mentor:

#### **Robert Chapman**

Best Scientific Research Presentation by a Senior, Andrews Society Award, (cash prize donated by Jess Kane, David Tesini and Nancy Jo Soporowski) Todd Walker, D10, "Comparison of Shear Bond Strength of All-in-one Adhesive and Self-adhesive-flowable Resin"; mentor: Gerard Kugel

ADA/Dentsply Student Clinician Award for Pre-doctoral Table Clinic Best Overall: Rebekah Lucier, D11, "Soft Tissue Protein Expression Modifications Following Exposure to Whitening Agents"; mentors:

#### Christophe Egles, Susana Ferreira, Jonathan Garlick and Gerard Kugel

Second Place (cash prize donated by Kane, Tesini and Soporowski): Catherine DeFuria, D12, "Shear Bond Strength of Different Resin Cements to Zirconia"; mentors: Ronald Perry and **Gerard Kugel** 

Third Place: (cash prize donated by Kane, Tesini and Soporowski): Alireza Ashrafi, D11, "Correlation of Severity and Morbidity in Odontogenic Infections and the Administration of Appropriate Empirical Antibiotic Therapy as Documented by a Five-year Retrospective Analysis"; mentors:

Constantinos Laskarides, Kalpakam Shastri, Maria Papageorge and Neophytos Demetriades

Research Committee Award for Basic Science Research (cash prize) Eileen Saunders, D11, "Adiponectic Inhibition of Bone Sialoprotein (BSP) Breast Cancer Metastasis to Bone"; mentors: Qisheng Tu and Jake Chen

Massachusetts Dental Society and ASDA Public Health Award Helen Fassil, D12, "Sociodemographic Predictors of Early Childhood Caries and the Effect of Early Childhood Caries on Pediatric Oral Quality of Life"; mentors: Wanda Wright and **Catherine Hayes** 

Omicron Kappa Upsilon Hilde Tillman Award

Corey Decoteau, D12, "Strength Analysis of Rebonded Composite Restorations"; mentors:

#### Shradha Sharma and Gerard Kugel

Procter & Gamble Traveling Fellowship Awards Farah Assadipour, D11,

"Bioengineered Dental Microtissues in a Collagen-Matrigel Construct"; mentor: Pamela Yelick

Corey Decoteau, D12, "Strength Analysis of Rebonded Composite Restorations"; mentors: Shradha Sharma and Gerard Kugel

Dr. Chad Anderson Family Award for Innovative Methodology and Research Design

#### William Moore, D12,

"Margin Characteristics of PFM Crown Copings Fabricated on Stereolithography Models"; mentors:

#### Eileen Doherty and Gerard Kugel

Multicultural Award for the Advancement of Dental Research (travel award donated by Kistama Naidu)

Lilv Hu. D12. "Altered Dentition in Retinoblastoma (Rb) Mutant Mice"; mentor: Pamela Yelick

## **WELCOME** TO TUFTS

ufts President Lawrence S. Bacow greeted entering students and their families at the dental school's eighth annual Family Welcome Day last fall, held at the Emerson College Cutler Majestic Theater. More than 500 attended the event, including school administrators, staff and a record 52 orientation volunteers. The new students registered for classes and attended orientation sessions, while their family members enjoyed campus tours and participated in a parent-to-parent panel discussion, which featured parents and a spouse of currently enrolled students as well as a 2009 alum, four course directors and Dean Lonnie H. Norris, DG80. The day concluded with a reception in the new park on Tufts' health sciences campus.



TOP: Sukhpreet Kaur, D13, with her father, Jaswinder Heer. ABOVE: Marissa Alikpala, D13, with her mother. Basilia Ramirez.

#### **ENDODONTICS**

Addy Alt-Holland, assistant professor, gave an invited lecture, "To Invade or Not to Invade? Understanding Cancer Progression in Three-dimensional Tissue Models of Human Squamous Cell Carcinoma," at Pine Manor College in Chestnut Hill, Mass., on November 11, 2009.

#### PRESENTATIONS:

- "Depletion of Focal Adhesion Kinase or Src Kinase in Fibroblasts Stimulates Cytokine Secretion and Promotes Tumor Cell Invasion in Bioengineered Three-dimensional Human Skin Equivalents," Y. Szwec-Levin, A. Sowalsky, L. Feig, J.A. Garlick and A. Alt-Holland, 6th annual meeting of the International Association for Biological & Medical Research, Boston, November 19, 2009.
- "Suppression of E-cadherin Function Leads to Deregulation of FAK and Src to Direct Squamous Cell Carcinoma Progression," A. Alt-Holland, Y. Szwec-Levin, A. Sowalsky, Y. Shamis, L. Feig and J.A. Garlick, AACR-NCI-**EORTC International Conference on Molecular** Targets and Cancer Therapeutics, Boston, November 15-19, 2009.

#### PUBLICATION:

■ "RalA Suppresses Early Stages of Ras-induced Squamous Cell Carcinoma Progression," A.G. Sowalsky, A. Alt-Holland, Y. Shamis, J.A. Garlick and L.A. Feig, Oncogene, 29(1):45-55, January 7, 2010.

#### **GENERAL DENTISTRY**

Paul Stark, associate professor and director of advanced and graduate education, attended the axiUm Summit in Vancouver, B.C., January 24–27, when he gave an update on the work of the Consortium for Oral Health Related Informatics (COHRI), a collaboration of more than 20 dental schools in the United States, Canada and Europe that use the axiUm electronic health record system. Stark chairs the Research Division of COHRI and serves on its board of directors.

#### ORAL AND MAXILLOFACIAL **PATHOLOGY**

Christophe Egles, assistant professor PRESENTATION:

"New Biomaterials in Human Health and Tissue Engineering," joint meeting of the

European Tissue Repair Society and the Wound Healing Society, Limoges, France, August 25-29, 2009.

#### **PUBLICATIONS:**

- "Three-dimensional Human Tissue Models of Wounded Skin," C. Egles, J.A. Garlick and Y. Shamis, Methods in Molecular Biology, 585:345-59, 2010.
- "Human Skin-equivalent Platforms for the Pre-clinical Development and Testing of New Wound-healing Agents," C. Egles and J.A. Garlick, Wound Healing Society Almanac, 2009.

Jonathan Garlick, professor and head of the Division of Cancer Biology and Tissue Engineering

#### **GRANTS:**

- "Elastin Damage and Repair in 3D Human Tissue Models," Johnson & Johnson Inc., \$37.793.
- "Testing of Human Skin Equivalents: Wound Healing II," Organogenesis Inc., \$10,820.
- "Testing of Human Skin Equivalents: Cell Bank III," Organogenesis Inc., \$17,361.
- "Testing of Human Skin Equivalents: Cell Bank IV," Organogenesis Inc., \$17,361.
- "Validation Study to Test 3D Human Skin Equivalent," Department of Defense (Tufts as subcontracting sponsor through Microbion Inc.), \$10,000.
- "Induced Pluripotent Stem Cells to Treat Skin Disease," Tufts Clinical and Translational Science Institute, \$20,000.

#### PRESENTATIONS:

- "Promises and Challenges of Stem Cells," annual meeting of the American Institute of Chemical Engineers, January 14.
- "Modeling Human Cancers in 3D Tissues," Sackler School course in pathobiology, December 2009.
- "Stem Cells and Human Tissue Models," Tufts Medical Center Pulmonary Division research seminar, December 2009.
- "Growing Skin from Human Stem Cells," Pine Manor College, Chestnut Hill, Mass., November 2009.
- "Tissue-engineered Models of Human Stem Cells," Tufts Stem Cell Study Group, October 2009.

#### **PUBLICATIONS:**

■ The Clinical Skull Manual, by Jonathan A. Garlick and Laurence D. Pfeiffer (AuthorHouse Publishing, Bloomington, Ind., 2010).

- "Soft Tissue Augmentation Using Silk Gels: An in vitro and in vivo Study," O. Etienne, A. Schneider, J.A. Kluge, C. Bellemin-Laponnaz, C. Polidori, G.G. Leisk, D.L. Kaplan, J.A. Garlick and C. Egles, Journal of Periodontology, 80(11):1852-8, November 2009.
- "Biofunctionalized Electrospun Silk Mats as a Topical Bioactive Dressing for Accelerated Wound Healing," A. Schneider, X.Y. Wang, D.L. Kaplan, J.A. Garlick and C. Egles, Acta Biomaterialia, 5(7):257, September 2009.
- "Three-dimensional Epithelial Tissues Generated from Human Embryonic Stem Cells," K. Hewitt, Y. Shamis, M.W. Carlson, E. Aberdam, D. Aberdam and J.A. Garlick, Tissue Engineering (A), November 2009.

Michael Hall, assistant professor, gave a presentation on "Desquamative Gingivoses and Their Differential Diagnosis" at the Department of Dermatology grand rounds at Lahey Clinic.

#### Michael A. Kahn, professor and chair COMMUNITY SERVICE:

- Oral cancer screening for seniors, with Michael Hall, assistant professor, Foxboro (Mass.) Council on Aging, November 7, 2009.
- Oral cancer screening for Chinese elders, Tufts Medical Center, September 26, 2009. CONTINUING EDUCATION PRESENTATIONS:
- "Management of Common Oral Soft Tissue Lesions," with Michael Hall, assistant professor, Tufts University School of Dental Medicine, December 9, 2009.
- "Bisphosphonate-related Osteonecrosis of the Jaws Update" and "Gingival Erythema and Vesiculoerosive Disease," with Michael Hall, assistant professor, Connecticut Valley Oral and Maxillofacial Surgeons, Hadley, Mass., October 28, 2009.
- "Practical Oral Pathology," White Plains, N.Y., August 6, 2009. PUBLICATIONS:
- "Oral Cancer: Few Know About It. Many Get It," M.A. Kahn, Bottom Line/Personal, 31(2):11, 2010.
- "Evaluation of Head and Neck Soft Tissue Screening by the Oral Health Care Delivery Team," S. Gordon, J. Geist and M.A. Kahn, Bulletin of Dental Education, 42:10, October 2009.

#### Lynn Solomon, associate professor CONTINUING EDUCATION PRESENTATIONS:

- "Oral Cancer Detection: The Role of the Dental Hygienist," 3rd annual Esther Wilkins Symposium, Massachusetts College of Pharmacy and Health Sciences and Forsyth School of Dental Hygiene, Boston, November 21. 2009.
- "B-cell Lymphoma of the Mandible" and "A Gingival Squamous Cell Carcinoma," Eastern Society of Teachers of Oral Pathology, Asheville, N.C., October 30-November 1, 2009.
- "Oral Pathology: From Abscess to Zygomycosis," Worcester District Dental Assistants Association, Boylston, Mass., October 3, 2009.

#### PUBLICATIONS:

- "Spindle Cell Carcinoma: An in vivo Example of Epithelial to Mesenchymal Transition," L.W. Solomon, M.A. Carlson, T.M. DesRochers and N. Laver, Oral Oncology Supplement, 3(1):203-4, 2009.
- "A Clinico-pathologic Correlation (Pleomorphic Adenoma)," M.R. Wimmer, R.A. Abdool, L.W. Solomon and W.C. Gilmore, Journal of the Massachusetts Dental Society, 57(3):56-58, Fall 2009.
- "ELISA Test for p63 Antibodies in Chronic Ulcerative Stomatitis," L.W. Solomon, P.C. Stark, L. Winter, V. Kumar and S. Sinha, Oral Diseases online publication, August 3, 2009.

Pamela Yelick, G89, professor, has been elected to a three-year term on the North American Council of the Tissue Engineering and Regenerative Medicine International Society (TERMIS), which promotes education and research in tissue engineering and regenerative medicine.

#### **ORAL AND** MAXILLOFACIAL SURGERY

Morton Rosenberg, D74, professor and director of anesthesia and pain control, coauthored a chapter on "Neural Blockade of Oral and Circumoral Structures" in the fourth edition of Cousins & Bridenbaugh's Neural Blockade in Clinical Anesthesia and Pain Management (Lippincott, Williams & Wilkins, 2009). He also reviewed the book Anesthesia in Cosmetic Surgery for the journal Anesthesia Progress (56:62, 2009). Rosenberg was

- appointed to the International Sedation Task Force of the World Society of Intravenous Anaesthesia. He serves as a consultant and external examiner for the Commission on Dental Accreditation of Canada and the Royal College of Dental Surgeons of Ontario. PRESENTATIONS:
- "Simulated Sedation/Anesthetic Emergencies for the Dental Anesthesia Provider," American Dental Society of Anesthesiology, Chicago, III., December 2009.
- "Pharmacology/Pediatrics/Geriatrics for the Anesthesia Assistant," American Dental Society of Anesthesiology, Chicago, III., December 2009.
- "Medical Emergency Care for the Dental Team," 3rd annual Esther Wilkins Symposium, Massachusetts College of Pharmacy, Boston, November 2009.
- "Nitrous Oxide-Oxygen Certification," Tufts University School of Dental Medicine continuing education courses, November 13-14 and November 20-21, 2009.
- "High Fidelity Human Simulation for Oral and Maxillofacial Surgery," annual meeting of the American Association of Oral and Maxillofacial Surgeons, Toronto, Canada, October 2009.
- "Pharmacology and Pediatrics for the Oral Surgical Assistant," annual meeting of the American Association of Oral and Maxillofacial Surgeons, Toronto, Canada, October 2009.
- "The American Dental Association Emergency Airway Rescue Course for Moderate Sedation Providers," annual meeting of the American Association of Dental Examiners, Honolulu, Hawaii, October 2009.
- "The Future of Sedation/Anesthesia in Dentistry: Where We Come From, Where We Are and Where We Are Going" and "Shared National and International Ideas: Future Sedation Models for Dentistry in Pediatric Sedation Outside of the Operating Room," Harvard Medical School and Children's Hospital, Boston, September 2009.
- "Medical Emergencies in the Dental Office," Tufts University School of Dental Medicine continuing education course, September, October, November, December 2009.
- "A New Airway Rescue Course for Moderate Sedation Providers," American Dental Association Council on Dental Education and Licensure annual meeting with the dental specialty boards and organizations, Chicago, III., August 2009.

#### PUBLICATION:

"ADSA Dental Sedation and Anesthesia Educational Initiatives Including Task Training and High Fidelity Simulation in the United States," J.C. Phero, K.E. Crowley, M.B. Rosenberg, D.E. Becker and J.J. Schaefer, an abstract for the International Federation of Dental Anesthesia Societies, 2009.

Kalpakam Shastri, DG05, assistant professor, gave a presentation on "Surgical Complications in Orthognathic Surgery" at the 91st annual meeting of the American Association of Oral and Maxillofacial Surgeons, held in conjunction with the annual meeting of the Canadian Association of Oral and Maxillofacial Surgeons, Toronto, Canada, October 12–17, 2009.

#### DEPARTMENTAL PRESENTATIONS:

- "Correlation of Severity and Morbidity in Odontogenic Infections and the Administration of Appropriate Empirical Antibiotic Therapy as Documented by a Five-year Retrospective Analysis," A. Alireza, C. Laskarides, K. Shastri, M. Papageorge and N. Demetriades, Tufts University School of Dental Medicine, Bates-Andrews Research Day, February 2010.
- "Titanium Plate Removal Following the Use of Semi-rigid Fixation Technique in Orthognathic Surgery," L. Hu, M. Jarmoc, P. Stark and N. Demetriades. Tufts University School of Dental Medicine, Bates-Andrews Research Day, February 2010.
- "Anatomic Changes Following SARPE Procedure," A. Naimi, W.S. McKenzie, J. Hendi, L. Suri, M. Finkleman and M. Papageorge, 91st annual meeting of the American Association of Oral and Maxillofacial Surgeons, Toronto, Canada, October 2009, and the Greater New York Dental Meeting, November 2009.
- "A Comparison of Treatment Outcomes Associated with Early Versus Late Treatment of Mandible Fractures: A Retrospective Chart Review and Analysis," M. Lucca, W.S. McKenzie and K. Shastri, 91st annual meeting of the American Association of Oral and Maxillofacial Surgeons, Toronto, Canada, October 2009.

#### **DEPARTMENTAL PUBLICATIONS:**

"Clinico-pathologic Correlation (Ameloblastic Carcinoma)," J. Kraus,

- M. Kahn and K. Shastri. Journal of the Massachusetts Dental Society, 57(4), 36-38, Winter 2009.
- "Revisiting the Importance of the Neck Exam," W.S. McKenzie, J. Hendi and K. Shastri, Journal of the Massachusetts Dental Society, 57(4), 24-26, Winter 2009.
- "latrogenic Subcutaneous Emphysema of Dental and Surgical Origin: A Literature Review," W.S. McKenzie and M. Rosenberg, Journal of Oral and Maxillofacial Surgery, 67(6), 1265-68, 2009.
- "Clinico-pathologic Correlation (Primary Ewings Sarcoma)," N. Demetriades, R. Prabhudev, L. Solomon, K. Shastri and M.B. Papageorge, Journal of the Massachusetts Dental Society, 58 (2), 38-41, 2009.

#### APPOINTMENT:

Laith Azzouni, to clinical instructor.

#### **ORTHODONTICS**

Vasiliki Cartsos, DG94, assistant professor, has completed her two-year term as president of the Tufts Association of Orthodontists. She says the highlight of her tenure was the organization of a successful alumni event in conjunction with the 2009 meeting of the American Association of Orthodontists in Boston last spring. Her article, "Bisphosphonates and Time to Osteonecrosis Development," was published in The Oncologist in November 2009. In addition, the article was selected by the Society for Translational Oncology to be offered as an online medical continuing education course, with the goal of training oncologists to identify and manage patients with osteonecrosis of the jaw. She co-authored a presentation, "Bisphosphonates and Time to Osteonecrosis Development: A Systematic Review," for the 12th European Congress of the International Society for Pharmacoeconomics and Outcome Research, which met in Paris in October 2009.

#### PEDIATRIC DENTISTRY

Mohammad Ahmed, DG09, a clinical instructor, published the paper "Graph for Calculating Maximum Local Analgesic Dose in Milliliters for the Pediatric Population" in the journal European Archives of Paediatric Dentistry (10: 40-42, 2009).

Stanley A. Alexander, D75A, professor and chair, presented a paper on "Orthodontic Decalcification: Acceptance or Prevention" on December 2, 2009, at the Greater New York Dental Meeting.

#### PERIODONTOLOGY

Wai Cheung, DG02, D06, assistant professor, is serving as vice president of the Massachusetts Periodontal Society. Cheung and Terrence Griffin, D71, DG75, associate professor and department chair, gave presentations on "New Developments in Periodontal Plastic Surgery," "Esthetic Considerations in Implant Therapy" and "Esthetic Crown Lengthening and Foreign Body Removal" at the annual meeting of the Taiwan Academy of Periodontology in Taipei in November 2009.

Timothy J. Hempton, associate clinical professor and assistant director of postdoctoral periodontology, served as co-chair of the Scientific Committee for the Yankee Dental Congress, held in Boston earlier this year. PRESENTATIONS:

- "Crown Lengthening Workshop," "The Periodontal Co-therapist" and "Implant Therapy and the RDH," Southwest Dental Conference, Houston, Texas, January 2010.
- "Crown Lengthening Workshop" and "Contemporary Periodontology for the General Dentist," Greater New York Dental Meeting, New York City, December 2009.
- "Save the Tooth or What's Next?", "Crown Lengthening Workshop" and "Implant Therapy and the RDH," annual meeting of the American Dental Association, Honolulu, Hawaii, October 2009.
- "Crown Lengthening Workshop," California Dental Association meeting, San Francisco, Calif.. September 2009. PUBLICATION:
- "Current Concepts in Esthetic Crown Lengthening," T.J. Hempton, Martin I. Sanz and F.J. Bonacci, Dimensions of Dental Hygiene, 7(10):24-30, 2009.

Aidee N. Herman, associate clinical professor and principal investigator, and coauthors Todd Walker, D10, and Samantha Jordan, D11, presented their project, "Improving Oral Health in Haiti: Preliminary

Assessment Strategies for Implementing Guidelines for an International Salt Fluoridation Project," at Tufts' Research Day on Global Health and Infectious Disease on October 5, 2009. At the annual meeting of the Hispanic Dental Association (HDA) in Houston, Texas, in October, Herman, faculty advisor for the Tufts student chapter of the HDA, presented "Giving Kids a Smile." Elizabeth Escarria. D10. president of the student chapter; Michael Bohman, D10, vice president; and Geraldine Navarrate, **D10**, class representative, gave a poster presentation on the 15th anniversary of the Tufts chapter. Herman was also a speaker at the Sixth New England Regional Minority Health Conference, held in Providence, R.I., on October 16, 2009. She participated in a panel titled "No Tooth Left Behind."

Rory O'Neill, associate clinical professor. was elected a trustee of the American Board of Periodontology for a term that runs through 2010.

#### PROSTHODONTICS AND **OPERATIVE DENTISTRY**

Amit Sachdeo, assistant professor, was inducted as an associate fellow of the Greater New York Academy of Prosthodontics at the organization's annual meeting in New York City in December 2009.

Hans-Peter Weber, the former Raymond J. and Elva Pomfret Nagle Professor of Restorative Dentistry and Biomaterials Sciences at Harvard School of Dental Medicine, was appointed professor and chair of the department in February. Weber received his D.M.D. from Harvard in 1990. He also holds a dental degree, a certificate in removable prosthodontics and a certificate in periodontics and fixed prosthodontics from the University of Bern in his native Switzerland. He holds leadership positions in the Academy of Prosthodontics and the International Team of Implantology. He was awarded honorary membership in the American College of Prosthodontists in 2002. At Harvard, Weber was also chair of the Department of Restorative Dentistry and Biomaterials Sciences. He has more than

100 publications and 12 textbook chapters to his credit, serves on the review boards of several dental journals and is a co-editor of Clinical Oral Implants Research. His primary research interest and expertise is in translational and clinical research in implant dentistry. He resides in Chestnut Hill, Mass., with his wife and two children.

Roya Zandparsa, DIO4, associate clinical professor, wrote a chapter on dental biomaterials for the second edition of the Standard Handbook of Biomedical Engineering and Design (McGraw-Hill, 2009).

#### PROMOTIONS:

David Bardwell, D85, to clinical professor. Nopsaran Chaimattayompol, DI03, MPH03, to clinical professor.

Joanne Falzone, D80, to clinical professor. Yun Saksena, DIOO, to associate clinical professor.

#### **PUBLIC HEALTH AND** COMMUNITY SERVICE

Natalie Hagel, assistant professor, was elected secretary of the American Public Health Association Oral Health Section at the organization's annual meeting in Philadelphia for a term that ends in November 2012. PRESENTATION:

"The Effectiveness of an Educational Intervention in a Middle School Population in Boston, Massachusetts," N.A. Hagel and W.G. Wright, American Public Health Association an annual meeting, Philadelphia, November 2009.

Catherine Hayes, D87, professor and chair, reports that the Tufts Community Dental Program received \$214, 900 for the second year of a three-year grant from the DentaQuest Foundation of Massachusetts, allowing the addition of a broad-based sealant component and creating more collaborations with community partners for the Oral Health Across the Commonwealth (OHAC) project. Boston, Lowell and Springfield will be served as part of this grant. In addition, OHAC was selected by the Association of State and Territorial Dental Directors as a "Best Practice." The Community Dental Program also

received a \$6,500 gift from the American Dental Partners to be used for activities associated with school-based dental programs and another \$35,000 grant from the State Street Foundation to fund a part-time dental assistant at the Josiah Quincy Elementary School in Boston. PUBLICATION:

"Pediatric Clinicians Can Help Reduce Rates of Early Childhood Caries: Effects of a Practice-based Intervention," N.R. Kressin, M.E. Nunn, H. Singh, M.B. Orner, L. Pbert, C. Hayes, C. Culler, S.R. Glicken, S. Palfrey, P.L. Geltman, C. Cadoret and M.M. Henshaw, Medical Care, 47(11):1121-8, November 2009.

John Morgan, assistant professor, and Paula Minihan, an assistant professor of public health and community medicine at Tufts Medical School, are the co-principal investigators for a two-year, \$923,000 National Institutes of Health Challenge Grant funded under the American Recovery and Reinvestment Act of 2009. They will study adults with developmental disabilities and identify the factors that hinder their ability to take care of their oral health and make regular visits to a dentist.

Carole Palmer, G69, professor and head of the Division of Nutrition and Oral Health Promotion

#### PRESENTATIONS:

- "Organizational Systems Analysis," Friedman School's Master's/Dietetic Internship program, January 6, 2010.
- "Plates, Pills & Beyond: A Buffet of Today's Hot Nutritional Issues," San Joaquin Dental Society, Stockton, Calif., November 19, 2009.
- "Nutrition Counseling and Communications in Dental Practice," New Hampshire Technical Institute dental hygiene program, November 12, 2009.
- "The Many Roles of Nutrition in Oral Health," Boston University M.S. in Nutrition Program, October 21, 2009.

#### **PUBLICATIONS:**

"Effect of Omega-3 and Vitamin E Supplementation on Dry Mouth in Patients with Sjögren's Syndrome," Medha Singh, Paul C. Stark, Carole A. Palmer, Jeffrey P. Gilbard and Athena S. Papas, Special Care in Dentistry (in press).

- "Oral Health and Nutrition." C. Palmer. a chapter in the Encyclopedia of Lifestyle Medicine (in press).
- "Preventive Dental Care," C. Palmer and M. Singh, Encyclopedia of Lifestyle Medicine (in press).

Athena Papas, J87, professor, gave a presentation on "Oral Rinse Formulation of P552-02 Is Not Orally Bioavailable in Subjects with Primary Sjögren's Syndrome" at the 10th International Symposium on Sjögren's Syndrome, which took place in Brest, France, on October 1–3, 2009.

Mabi Singh, DI07, associate professor, gave a presentation on "Development of P552-02 to Treat Xerostomia in Sjögren's Syndrome" on October 18, 2009, during the annual scientific meeting of the American College of Rheumatology/Association of Rheumatology Health Professionals in Philadelphia.

Medha Singh, DG04, DG05, assistant professor, was inducted as a fellow of the International College of Dentists during the organization's annual meeting in Hawaii in October 2009. Singh is the recipient of the 2010 "Ten Under 10" award from the Massachusetts Dental Society. The award recognizes dentists who have graduated from dental school within the past 10 years and have made significant contributions to the profession, their community and organized dentistry.

#### PRESENTATIONS:

■ "The Effect of Calcium Supplementation on Periodontal Disease in a Salivary Hypofunction Population," American Academy of Periodontology annual meeting, Boston, September 2009, and Tufts University Research Day on Global Health and Infectious Disease, October 2009.

#### PUBLICATION:

■ "Sjögren's Syndrome," M. Singh, C. Palmer and A. Papas, accepted for publication in the June 2010 issue of Dentistry Today.

Hilde Tillman, D49, professor, received a grant from the Alpha Omega Dental Society to support her oral health education and screening program in 20 assisted-living and elder housing facilities in greater Boston.



## A Promise Kept

Students have a caring benefactor in Suzi Osher, who established a scholarship in memory of her husband by Deborah Blagg, J77

HEN I MAKE A GIFT, I ALWAYS FOLLOW IT," SAYS PHILANTHROpist Dorothy Suzi Osher, who established the Dr. Alfred Osher, DG62, and D. Suzi Osher Scholarship at Tufts University School of Dental Medicine to honor her late husband, a long-time clinical faculty member. "And as I've gotten to know the dedicated students who benefit from our funds, I couldn't be happier."

Osher is seated in a graciously appointed former carriage house on a quiet street in Portland, Maine, a building once intended to house her husband's orthodontics practice. When he passed away in 1999, Osher kept her promise to complete a meticulous renovation of the building. Today it serves as her office, where she skillfully oversees her business interests and philanthropic investments in

education and health care.

The daughter of French-Canadian immigrants, who faced substantial hardships weathering the Depression while they raised a family in Biddeford, Maine, Osher learned to value education and hard work. "My first job was playing the piano at a local music store when I was just 10," she recalls. "At 15, I was working for the government Census Bureau." After high school, she See **OSHER**, next page

**OSHER**, continued from previous page worked as a bookkeeper for Alfred Osher, an oral surgeon in town. Several years later, at his request, she completed a course in anesthesiology at Boston City Hospital and began assisting with procedures. "At the time," she notes, "Al was the only board-certified oral surgeon in Maine, so 70-hour work weeks were not unusual."

In 1962, Alfred Osher completed the Tufts postgraduate program in orthodontics, becoming the first board-certified

orthodontist in Maine. He also began teaching at Tufts Dental School, traveling to Boston every Tuesday, even in the worst winter weather. After the couple married, Suzi Osher pursued her own interests in business and fashion, opening a specialty clothing store in Biddeford, a venture she calls "my real career." Even as she managed her own successful business, she stayed involved in her husband's growing dental practice. "We were one of those rare couples who enjoyed working together," she says.

Osher says the scholarships at Tufts are "another promise I made to Al that I've been delighted to be able to keep." Since they were established in 2006, the Osher Scholarships have supported 34 students from across the globe, many of whom are the first in their family to graduate from college. "That's exactly what Al would have wanted, and of course, it fits with my own values as well," she says. "It's been a wonderful way to support promising young people and an institution that has meant so much to both of us."

#### BOUNDI ESS GRATITUDE FOR A DAY LIKE NO OTHER

AERWEN POLLARD, D10, WAS EXAMINING A PATIENT IN THE DENTAL SCHOOL clinic last fall when she received some unexpected, but not unwelcome, news. Her good friend Logan Reilly, D10, whispered in her ear, "When you're finished here, go look in your mailbox. You got the scholarship, too!"

Pollard, Reilly and seven other Tufts dental students are this year's recipients of the Dr. Alfred Osher, DG62, and D. Suzi Osher Scholarship, established by Suzi Osher in memory of her husband, a Tufts-trained orthodontist.

"I was shocked and ecstatic," says Pollard, who will use her scholarship to whittle down her education debt. "I was more than grateful. It's a huge relief to me to know that I will be borrowing less money."

The same goes for Reilly. "Finding out the news was simply incredible," he says. "The scholarship makes a definite difference



in terms of the money it will save me now-and later. It will mean less to borrow and less interest to pay back."

Both have demonstrated the strong personal and work ethic the Osher Scholarship embodies.

Reilly, 26, who grew up in central Wisconsin, maintains his focus on the basics: staying organized and communicating clearly with his patients. Reilly is at his desk in the dental school clinic office by 7:30 most mornings. He spends a couple of hours completing paperwork and reviewing patient records so that he can greet that day's patients armed with information about their oral-health issues and confident in his ability to care for them.

"I want to work hard to maintain an open relationship with my patients so that they'll feel comfortable telling me what I need to know in order to help them," he says

After graduation this spring, Reilly plans on working in a private practice. His big goal: to open his own practice. With a Tufts dental degree, he says he's sure he'll have no trouble finding the right opportunity. "I know that I'm getting a better education here than I would elsewhere, just in terms of hands-on experience," he says. "And, of course, the faculty

and the facilities are great. This will open doors for me. Getting the Osher Scholarship on top of all that was a wonderful surprise." Pollard says hard work is just part of her nature. "I put 110 percent into everything I do," she says. "By the end of each day, I want to feel that I've done the best work I can do. I want to know that I've tried my best to help others."

Pollard, 26, spent part of her youth in Swaziland and then moved to Maine to finish high school. She wants to pursue her dental career in a rural area, knowing that she may well be the only dentist in town.

"I'm getting an incredible education that will prepare me for anything," Pollard says. "I know that I will leave here with the best possible clinical skills and with a solid foundation for what lies ahead. To be named an Osher Scholar on top of everything else that's already been so great at Tufts Dental School is a real honor." -AMY ROSENBERG



Sudden Impact

#### Alumnus establishes school's first term scholarship

OHN FICARELLI, D73, D10P, IS A multitasker extraordinaire. A pediatric dentist with two practices in the Boston area, Ficarelli is also on the staffs of the Franciscan Hospital for Children and Tufts Medical Center and serves as director of dentistry at the Massachusetts Hospital School in Canton. In addition, he is a founding board member of the international volunteer organization Project Stretch: Dentistry Reaching Out to Children and a member of the American Dental Association, the Massachusetts Dental Society, the American Cleft Palate-Craniofacial Association, the Academy of Dentistry for Persons with Disabilities and the American Academy of Pediatric Dentistry. He talked about his professional achievements in a speaker-phone interview while driving to a retirement community to perform with his men's glee club.

"It was important to me ... to give a gift that would help someone immediately." says John Ficarelli of his decision to create a term scholarship.

And yet there's still time in the day to be fully engaged as an alumnus of Tufts Dental School. He's an ex-officio member and immediate past president of the Dental Alumni Association, a member of the school's Beyond Boundaries Campaign Committee and chair of the Dental M Club; he also co-chaired his 35th reunion committee. "Once you get involved with an institution and with colleagues who demonstrate a commitment to that institution, it's only natural to want to give as much as you can," Ficarelli says. "If you feel you had a valuable educational experience—and for me Tufts was an experience that was truly invaluable—then you have to contribute what you can to help maintain the reputation of your institution."

He's found yet another way to contribute by creating the first term scholarship at Tufts Dental School. Unlike an endowed scholarship, which is invested as part of the school's endowment to provide earnings that offer aid in perpetuity, a term scholarship is put to use right away. "It was important to me, especially because of the current economic situation, to give a gift that would help someone immediately," Ficarelli says. "A term scholarship is an excellent alternative to an endowed scholarship, given my interest in having a direct impact on a student's life right now."

The new scholarship is named for Ficarelli and his wife, Victoria Danberg, a Ward 6 alderman-at-large in Newton, Mass., where the couple lives. "We tend to do most everything together," he says. To qualify for the Ficarelli/Danberg scholarship, students must be candidates for financial aid and demonstrate superior academic ability and the potential for leadership in dentistry.

-AMY ROSENBERG

## A Time to Remember



THE TUFTS UNIVERSITY SCHOOL OF DENTAL MEDICINE Alumni Association continues to be strong and vigorous, and the Board of Directors is working to serve and represent each and every graduate of our school. I have had the privilege of serving as your president during this extraordinary time in the history of our school, most notably during the celebration of the completion of the vertical expansion project on November 20, 2009.

More than 1,400 guests attended the grand event, including alumni, Tufts President Lawrence

S. Bacow, Dean Lonnie H. Norris and all the members of the Board of Directors, as well as the deans of our neighboring dental institutions: Jeffrey Hutter from Boston University, R. Bruce Donoff from Harvard and Phil Stashenko from Forsyth.

During the Yankee Dental Congress in January even more alumni had the opportunity to come to the dental school and see firsthand this unforgettable chapter in Tufts' history. And, of course, the expansion will be front and center during Homecoming & Reunion Weekend April 30 through May 2.

This state-of-the-art facility and the technology that it contains have further elevated Tufts Dental School as a national center of excellence in oral health education, research and patient care. Our dental school continues to attract large numbers of extremely qualified applicants. Our students are enthusiastic about their education and look forward to successful careers. Our excellent faculty continue to provide an exceptional dental education with a global reputation.

The inspired leadership of Dean Norris paved the way for the expansion

project to be completed without any interruption to patient care in our clinics or the education of our students. Dr. Norris looked to the alumni association for support so that his vision for the school could be realized. Your participation in this effort has been remarkable and continues to be vital to the success of Tufts Dental School.

During my tenure on the alumni association's Board of Directors, and now as president of the association, I have had the opportunity to meet many alumni from all over the country. I look forward to meeting many more of you in the coming months and encourage you to continue your dedicated support of Tufts Dental School. I hope to see you at Homecoming & Reunion Weekend later this spring.

With warm regards,

Email notifications will be sent when the Tufts Dental Career Link goes live. To ensure that you receive the message, please send an email with your name and class year to:

TOFIGH RAAYAI, DG77, DI82 PRESIDENT, TUFTS UNIVERSITY DENTAL ALUMNI ASSOCIATION

COMING SOON! ufts Dental Career Link dental.tufts.edu/careerlink Exclusive access for Tufts Dental alumni and students to: · Post and search for job openings and practices for sale · Professional networking Assistance with resumes and cover letters

dental-alumni@tufts.edu.



Clockwise from above: Anthony M. Paolucci, D11, Mark Gonthier, associate dean for admissions and student affairs, and Anthony D. Paolucci, D85, D11P. Michael Paisner D10, Allison Paisner, Leslie Paisner, D10P, and Eliot Paisner, D77, D10P. Keni Phillis, Mary Phillis, D13P, Daniella Phillis, D13, Hugh Phillis Jr. and Hugh Phillis D80, DG82, D13P





### **FAMILY TIES**

Of the 180 students in the Class of 2013, 28 have a relative who graduated from Tufts School of Dental Medicine. That was cause for celebration last August 31, when the Office of Development and Alumni Relations hosted its third annual Dental Legacy Reception at Maggiano's Little Italy restaurant in Boston for more than 70 students and alumni with family ties to Tufts Dental.

### **PAYING IT FORWARD**

Share your pride, your affiliation and your support of Tufts University Dental Alumni Association by renewing your membership today.

Programs your dues support include:

- Tufts Dental Medicine, your award-winning alumni magazine
- Alumni receptions at national dental meetings
- Annual Homecoming and Reunion programs
- Regional alumni chapters in California, New York, Florida and Greece
- Annual Wide Open Golf and Tennis Tournament

Annual dues are \$125 for July 2009–June 2010.

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To learn more about services and programs for Tufts Dental alumni visit http://dental.tufts.edu/alumni.



LEFT: Samuel Shames, D75; Steve Silverberg, D75, A08P, G10P; Steve Rubin, D75; and Gene Greystone, E72, D75A, with some treasured baseball memorabilia: signed baseballs and a photograph of Ted Williams of the Boston Red Sox and Babe Ruth of the New York Yankees at Fenway Park on July 12, 1943, items that were auctioned off to support the Student Loan Fund. BELOW: Steve Tonelli, D80, A04P, A06P, A10P, and Robert Amato, D80, DG83



RIGHT: Derek Wolkowicz, D97, DG00, and Barry Briss, D66, DG70, D95P, DG97P, professor and chair of orthodontics **BELOW: Tennis champion David** Mitchell Singer, D98, DG00, and Sheldon Sullaway, D62





## Wide Open Raises \$13,000 for Student Loan Fund

More than 80 alumni and friends of Tufts School of Dental Medicine competed in the 27th annual Wide Open Golf and Tennis Tournament at Pinehills Golf Club in Plymouth, Mass., last September 23 to benefit dental students. The tournament, which is supported by alumni and corporate sponsors, raised \$13,112 for the Student Loan Fund, bringing the 27-year cumulative total to \$271,295. Mark your calendar: The 2010 tournament, which will include golf, tennis and spa activities, will take place on Monday, September 20, at the Wellesley Country Club in Wellesley, Mass.

#### WIDE OPEN CHAMPS

#### Team Gross Champions (Score 69):

John Ficarelli, D73, D10P; Steve Saunders, D77, DG80; Ryan Quinn and Mike Rizzo

#### Team Net Champions (Score 55):

Anthony Giamberardino, D85; Lawrence Joyce, D77, DG80; Chris Simoneau, director of central development programs at Tufts; and George Champney, E77

Tennis Champion: David Mitchell Singer, D98, DG00

#### 2009 SPONSORS

#### **Awards Dinner and Raffle** Sponsors (\$6,000)

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Solmetex

Sullivan Schein Dental

Sybron Endo

#### Hole in One Sponsor

Wagner Motors

#### Standard Golf Foursome (\$2,000)

Dental Associates of

Walpole

Gentle Dental Associates

Rosen and Associates

#### Gold Level (\$650)

Dickerman Dental Prosthetics

MDS Insurance Services Inc

Tufts Dentists of Medford & Winchester

Tufts Dentists of Southeastern Massachusetts

#### Silver Level (\$250)

Barr and Barr Inc.

#### Par Club (\$100 and/or prizes)

Cherie Bishop, D94

California Pizza Kitchen

Davio's/Avila

Mostafa El-Sherif, DI95

Arthur Falvey, D60, J84P

Kings Bowling

The Langham Boston

Madison Floral Maggiano's

Massachusetts Dental

Society

John Millette, D91

Orinoco

PepsiCo

Pinehills Golf Club

Tofigh Raayai, DG77, DI82

The Ritz-Carlton, Boston

Common

Seaport Hotel

Stella

Tufts Dentists of New

Hampshire

Tufts Dentists of Western Massachusetts

Tufts University Dental Alumni Association

Tufts University Dental Development & Alumni

Relations

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Westin Waterfront Hotel Westin Copley Place

#### DON'T MISS A THING

**Tufts School of Dental Medicine hosts events across** the country and around the world. Don't miss the chance to join us if an event is happening near your seasonal residence.

Do you have more than one residence? Many alumni split their time between two residences and attend Tufts Dental events in both places. Sharing your seasonal address with Tufts will keep you plugged in to events and activities wherever you are.

Contact us with your seasonal address update:

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PHONE: 617.636.6773

Or, please fill out this form and mail it to:

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## 





ABOVE: David Stahl, D51, with his brother, Bob. LEFT: The 1991 etching and engraving Train from Munich, by Peter Milton, about the 1939 British effort to rescue Jewish children from Nazi Germany, was part of the Currier exhibition.

#### A NIGHT AT THE MUSEUM

David Stahl, D51, hosted a preview of the exhibition "Evolution of a Shared Vision: The David and Barbara Stahl Collection" at the Currier Museum of Art in Manchester, N.H., last October 28. Over the decades, the Stahls acquired between 400 and 500 prints, according to exhibition curator Kurt Sundstrom. "Evolution of a Shared Vision," which was shown through January 3, highlighted just over 100 of them. The couple's collection contains works from the early part of the 20th century, especially German Expressionist prints, and the social realism of Americans such as Edward Hopper, Reginald Marsh and John Sloan. The show also

featured works by Rembrandt, Piranesi, Whistler and Picasso.

"The collection is very impressive," Dean Lonnie H. Norris, DG80, said. "However, just as impressive is Dr. Stahl's extensive knowledge about each artist, the details and influences of each piece and the decision-making process involved in acquiring each piece."

Stahl is retired from practice. His wife, a longtime professor of biology at Saint Anselm College, died in 2004. As the predental advisor at Saint Anselm, Barbara Stahl had established a respected relationship with the admissions office at Tufts Dental.



From left, Tannaz Shapurian, D92, DG00, DG04; Monica Vicario; Wai Cheung, DG02, DI06; Nikolaos Efthimiadis, DG01: Anas Jan. DG98, DG01, DG02: and Georgios Kontovazainitis, DG04.

#### PERIO GOES INTERNATIONAL

The Department of Periodontology hosted its fourth international conference in Boston on September 11, "The Building Blocks of Periodontology." Periodontal alumni and current faculty presented nine lectures on how they use skills gained from their postdoctoral training to practice and teach modern-day periodontology.

The conference culminated in an international alumni party at the Ritz, attended by more than 200 alumni and friends. Dean Lonnie H. Norris, DG80, and conference chair Terrence Griffin, D71, DG75, who leads the perio department at Tufts, presented awards to six periodontal alumni for their service to Tufts and their contributions to the specialty: Violeta Arboleda, DG51, a former Tufts faculty member; Mark Hirsh, DG68, a dental overseer and former faculty member; Max Perlitsh, D56, DG65, J87P, J89P, D91P, DG94P; Gerald Shklar, G52; Jerome Smulow, G61, DG64, J92P, A95P, former chair of the department; and Esther Wilkins, D49, DG66, a clinical professor. This was the first perio department international conference held in the United States.

## Carl Links

#### NEW YORK MEETING

President Lawrence S. Bacow was the featured speaker at the Greater New York Alumni Chapter reception/dinner on December 1. More than 80 alumni attended the event, held in conjunction with the Greater New York Dental Meeting. Rebekah Lucier, D11, and William Stuart McKenzie, D10, gave presentations at the 2009 Table Demonstration Competition as part of their second- and third-place awards, respectively, at the 2009 Bates-Andrews Research Day. Lucier was awarded first place in the student research competition at the New York meeting for her project on "Alterations of Three-dimensional Human Tissue Equivalents by Tooth-whitening Agents." McKenzie's research was on "Anatomical Changes Following SARPE Procedure."

Rob Berg, D03; Candice Zemnick, D02; and Julia Sivitz. D05, DG08, at the Big Apple





From left: Ronald Maitland, A60. D64, J90P; Howard Lieb. D73. M04P: Cliff Salm, A74, D77; and Harold Gelb, D47, A78P, J83P



From left: Sheldon Nadler, D73; Steve Tunick, D73; John Lanzetta Jr., D87; Amy Dukoff-Toro, E78, D81; and Steven Jukowitz, DG96



Prosthodontics alums, from left, Takayoshi Suda, D08; Gianluca Paniz, DG06; and Mario Gatti, D00, DG07, DG08, wear the medals they received for running the 2009 New York City Marathon, a challenge they agreed to undertake when they became board-certified in their specialty.

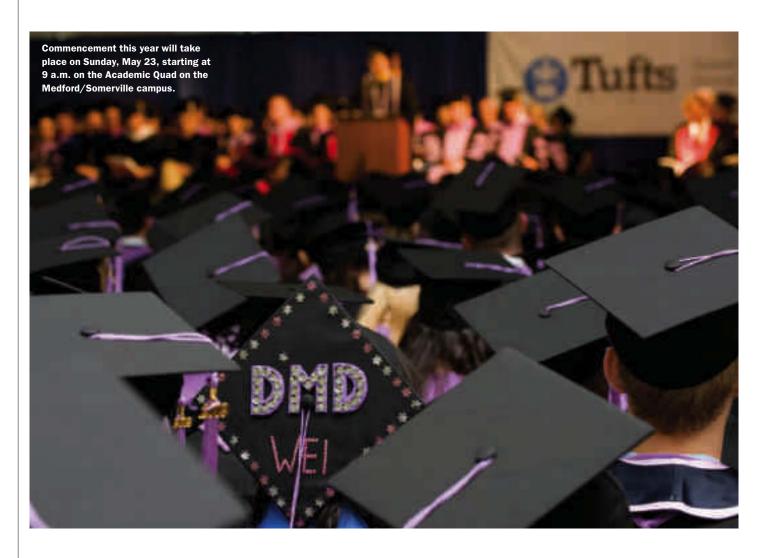
#### **PROSTHODONTISTS** IN SAN DIFGO

Hiroshi Hirayama, DG90, DI93, DG94, professor of pros-thodontics and operative dentistry, hosted more than 50 alumni at a reception in San Diego, Calif., on November 5, 2009. The alums were in town for the annual meeting of the American College of Prosthodontists.

#### SURGEONS IN CANADA

Maria Papageorge, D82, DG86, DG89, A12P, chair of oral and maxillofacial surgery, welcomed 40 alumni and friends to a reception on October 15, 2009, held in conjunction with the annual meeting of the American Association of Oral and Maxillofacial Surgeons in Toronto, Canada.





**APRIL 14-17** Alumni reception in

conjunction with the annual session of the American Association of Endodontists San Diego, California

APRIL 30-MAY 2

Dental Homecoming and Reunion Weekend Tufts School of Dental Medicine and Langham Hotel, Boston, Massachusetts

APRIL 30-MAY 4

Alumni reception in conjunction with the annual session of the American Association of Orthodontists Washington, D.C.

MAY 13-16

Alumni reception in conjunction with the spring meeting of the California Dental Association Anaheim, California

MAY 23

Tufts University's 154th Commencement Academic Quad Medford/Somerville campus 9 a.m.

MAY 27-31

Alumni reception in conjunction with the annual session of the American Association of Pediatric Dentistry Chicago, Illinois

SEPTEMBER 20

Wide Open Golf and **Tennis Tournament** Wellesley Country Club Wellesley, Massachusetts For more information on these and other events, contact the Office of **Dental Alumni Relations at** 617.636.6773 or email dental-alumni@tufts.edu. you can also visit http://dental.tufts.edu/alumni.



**Tufts University** trustee and dental overseer Thomas F. Winkler III, A62, D10P, was named president-elect of the American College of Dentists (ACD) during the organization's annual meeting in Hawaii in October 2009. The ACD is the oldest national honorary organization for dentists. An endodontist in private practice, Winkler received a 2010 Distinguished Service Award, the highest honor of the Tufts University Alumni Association, during ceremonies on the Medford/ Somerville campus on April 10. Winkler is also a member of Tufts' Board of Overseers to the School of Arts and Sciences and a clinical professor of endodontics at the dental school. He serves on the editorial board of the Journal of Endodontics.

**Edward Kampf** sold his practice in February 2009, and took his sixth trip to Central America in October for a mission to Guatemala. He teaches cariology and comprehensive care at New York University College of Dentistry.

Ira D. Cheifetz. of Princeton Junction, N.J., assumed the presidency of the American Association of Oral and Maxillofacial Surgeons during the organization's annual meeting in Toronto, Canada, last October. "Remember," Cheifetz said during his president's address, "we are not prisoners of the past. but architects of our future. We are part of a great health-care community, practicing in a most rewarding specialty, one that positively changes our patients' lives every day." Cheifetz is a diplomate of the American Board of Oral and Maxillofacial Surgery and an AAOMS fellow. He practices in Mercerville and Princeton Junction.

Harold W. Crosby has retired after 35 years in dental practice. Now he's farming blueberries, cutting wood, and working on and driving his Ford Model T in Whiting, Maine.

Morton Rosenberg, A09P, has been appointed to the International Sedation Task Force of the World Society of Intravenous Anaesthesia. He is a professor of oral and maxillofacial surgery and director of anesthesia and pain control at Tufts Dental School.

REUNION 2010. APRIL 30-MAY 2

Arnold Maloff. of Marblehead, Mass., was named a William McKenna Volunteer Hero by the Massachusetts Dental Society (MDS) in recognition of his contributions to organized dentistry at the state and local district levels. The award is named in memory of McKenna, a force behind the development of the Yankee Dental Congress. "Volunteering has enriched my life and my practice in so many ways," said Maloff. "On a personal level, volunteering has opened up a whole network of interesting and exciting colleagues to interact with, and many of these relationships have developed into lifelong friendships." Maloff is a member of the North Shore District Dental Society, the MDS Peer Review Committee and a board member of the Eastern Dental Insurance Agency. He practices at Endodontics Inc. in Danvers

Joseph R. Kenneally received the 2010 James W. Etherington

and Salem. Mass.

Award in recognition of his contributions to organized dentistry at the opening ceremonies of the Yankee Dental Congress, held in January in Boston. Kenneally served as second vice president of the American Dental Association from 1997-98. He was president of the Maine **Dental Association from** 1992-93, and has served as chair of the ADA Council on Membership, caucus coordinator for the ADA First District Trustee and the District I vice regent for the International College of Dentists. He lives in Kennebunk, Maine, is a prominent member of his community and has coached for youth programs in ice hockey, softball and baseball.

**David Dodell** has joined the faculty of one of the country's newest dental schools, Midwestern University College of Dental Medicine in Glendale, Ariz., as an assistant professor. He is coordinating the installation of the school's electronic dental record system and teaching in the simulation lab.

Jeffery Egger, see D08.

#### WE WANT TO HEAR FROM YOU!

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John Hsu, left, presents the service award to his former teacher. Robert Doherty.

John Hsu, a lieutenant colonel in the U.S. Army Reserve and commander of the 455th Medical Company (Dental Service), presented the Meritorious Service Medal to his former teacher. Robert Doherty. also a lieutenant colonel in the Reserves and director of the International Student Program at Tufts Dental School. Doherty

was honored at a ceremony at Fort Devens, Mass., for his service with the 455th Medical Company from 2000 to 2009.

Michelle Dorsey graduated with the 2009 Academy of General Dentistry (AGD) Masters at the annual AGD meeting in July 2009. She was also voted program chair for 2009-10

for the Brevard County Dental Society in Florida.

Keri Logan is the director of the dental general practice residency program at St. Charles Hospital in Port Jefferson, N.Y. Logan continues to maintain a part-time practice with Joseph D'Ambrosio in Bethpage, N.Y.

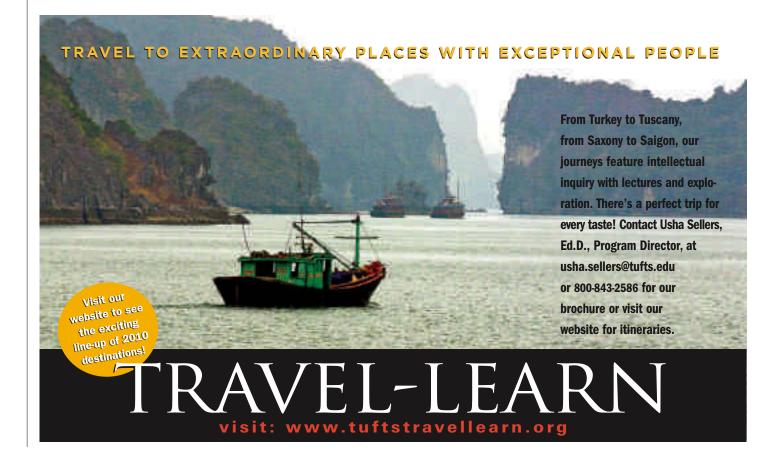
John Giordano talked about what it's like to work in forensics ("I haven't been in any morgue or facility that looks as nice" as those on the TV shows CSI and Bones.) in an article in the Worcester Telegram & Gazette. He is a forensic odontologist in Worcester, Mass.

Nilfa Collins, of Hudson, N.H., was

appointed to the New Hampshire Board of Dental Examiners by Gov. John Lynch for a five-year term. With that appointment, she automatically becomes a member of the Northeast Regional **Board of Dental Examiners** (NERB). She owns a pediatric dental practice in Pelham.

Patricia Juarez-Martin has opened a practice, All About Smiles Pediatric Dentistry, in Commack, N.Y. She and her husband. Kevin Martin, an endodontist, have three children, Liliana, 4; Kevin, 2; and Daniella, four months.

REUNION 2010. APRIL 30-MAY 2 Rebecca Paglia, who practices in Marlborough, Mass., provided dental care at a clinic in



Kathmandu, Nepal, under the auspices of Global Dental Relief (formerly the Himalayan Dental Relief Project). Over seven days, the clinic treated 949 patients, many of whom had never received dental care. The oral healthcare volunteers did 152 cleanings, 385 restorations and 112 extractions. Prior to the mission, Paglia's patients donated toothbrushes and art supplies, which she brought to the children in Nepal. In 2006, Paglia traveled to Vietnam with the Himalayan Dental Relief Project. For more, visit www.globaldentalrelief.org.

Abdul Abdulwaheed.

E97. has received the Mastership Award from the Academy of General Dentistry, completing 1,100 hours of continuing education in the 16 disciplines of dentistry, including 400 hours dedicated to hands-on skills and techniques. One of the youngest recipients of the award, Abdulwaheed is the president and co-founder of Lux Dental in Quincy, Mass.

Heidi Sichelman and her husband, Monte, an ophthalmologist, welcomed Jay Parker on May 22, 2009. He weighed 6 pounds, 9 ounces. Sichelman practices general dentistry in Auburndale, Fla.

Ancy Verdier, A96, DG06, was profiled on the website Hamptons.com, in an article about his commitment to caring for his patients 24/7. He says he's proud of the fact that his patients will never have to talk to an answering machine on a Saturday afternoon. One of four periodontists on Long Island's South Fork, Verdier opened a practice in Wainscott in May 2009. He also teaches at Lincoln Hospital in the Bronx and is an associate clinical

professor at New York University School of Dental Medicine.

Medha

Singh, DG05, was inducted as a fellow of the International College of Dentists during the organization's annual meeting in Hawaii in October 2009. Singh is an assistant professor of public health and community service at Tufts.

**Richard Bolduc** married Claire Spollen on September 12, 2009. They reside in Portsmouth, N.H. Bolduc and his staff were set to embark on a dental mission trip to Peru in March to treat residents of isolated villages outside of Lima.

Yvonne Lee and Jong-Bum John Seo were married in Huntington Beach, Calif., in November, 2008. The couple has relocated to Baltimore, Md., and hope to start a practice

together.

**Michael Allen Hull** and Courtney Jean Sweeney were married on July 25, 2009, in Gray, Tenn.

After completing her AEGD in July 2009, and doing predeployment training in San Antonio, Texas, Jenny Liang reports that she shipped off to Afghanistan last fall, and is stationed at Camp Leatherneck in the Helmand Province. "There are three other dentists from my command going with me," she

wrote, "so at least I won't be too lonely....all I can do is hope for the best and do my duty!"

Becky Seppala and her husband, Jayme, welcomed Brayden Jeffery on October 22, 2009. He weighed 7 pounds, 4 ounces. His grandfather is Jeffery Egger, D82, D08P.

Michael Cwiklinski has joined Periodontal Associates in Portland, Maine.

**Douglas** LaLiberte is the first full-time dentist at the Dental Coalition in Waterville, Maine, which opened in 2000 to improve access to dental care in central Maine.

#### IN MEMORIAM

#### Ellis B. Brewster, D39

November 30, 2009 Ingleside, Texas

#### Albert Kleiman, D43A

October 10, 2009 West Hartford, Connecticut

#### Harold F. Bosco, D45

June 2009 New Britain, Connecticut

#### Eugene F. Ferraro, D46

September 25, 2009 Kenner, Louisiana

#### Ruth (Lapen) Krawzun, D49

December 5, 2009 Standish, Maine

#### Thaddeus S. Rodowicz, D49

May 8, 2009 Chicopee, Massachusetts

#### F. Daniel Buttner, D51

June 1, 2009 Scarborough, Maine

#### George T. Gildea, D52, DG53

October 25, 2009 Canton, Massachusetts

#### Robert E. Rosenblum, A48, D52

October 28, 2009 Brighton, Massachusetts

#### Harold R. Archambault, D53

November 11, 2009 Kingsbury, New York

#### Charles A. Bunnell, D54

December 21, 2009 Belfast, Maine

#### Casper H. Burke, D56

June 10, 2009 East Lyme, Connecticut

#### James H. Connor, D58

May 15, 2009 Nottingham, New Hampshire

#### George M. Silva, A53, D58

May 18, 2009 Westport, Massachusetts James R. Geracci, DG66, DG72

May 7, 2009 Las Vegas, Nevada

#### Kenneth Manuelian, D77

September 22, 2009 Spring Hill, Florida

#### **FACULTY**

Victor Saulnier, G74, former associate clinical professor of oral and maxillofacial radiology, on October 3, 2009. He was appointed to the faculty in 1966 at the rank of instructor in the former Department of Social Dentistry after receiving his D.D.S. from McGill University. After earning his M.S. degree from Tufts in 1974, with a concentration in radiology, he transferred to the former Department of Radiology as an assistant professor. He retired in 2005, after nearly 40 years of teaching. Saulnier was known for his earnest desire to share his knowledge of radiology.

#### MARCH 26

Crown Lengthening Workshop Drs. Emilio Arguello and Eduardo Marcuschamer

#### **MARCH 26-27**

Nitrous Oxide **Certification Course** Drs. Morton B. Rosenberg, C.S. Maller and William A. MacDonnell

#### MARCH 27

Lasers in Periodontics and Restorative Dentistry Dr. Robert A. Convissar

#### MARCH 31

Clinical Nutrition for the 21st-century Dental Practice Dr. Anthony T. Tolentino

#### APRIL 7

Oral Pathology: Short Stories and Tales Dr. Michael A. Kahn

#### **APRIL 8-10**

Orthodontics: Reconnecting the Old with the New Dr. Marcel Korn

#### APRIL 9

Advanced Bone Grafting: The Biologic Basis for **Enhanced Grafting Outcomes** Dr. Dennis Thompson

#### APRIL 10

Real World Endo® presents "The Endo-Restorative Continuum" Drs. Ken Koch and Ali Allen Nasseh

#### APRIL 14

Complications of Dentoalveolar Surgery: Recognizing, Managing and Most Importantly, Avoiding Problems Drs. Salvatore L. Ruggiero and Stuart E. Lieblich

#### APRIL 16

The Restorative Dentist's Role in Implant Prosthodontics: Team Approach Dr. Allen L. Schneider

#### APRIL 21

Medical Emergencies and Head and Neck Cancer Examination for the Dental Team Drs. Morton B. Rosenberg and Lynn W. Solomon

#### APRIL 23

What's Hot and What's Getting Hotter! Dr. Howard S. Glazer

#### **APRIL 23-24**

Nitrous Oxide Certification Course Drs. Morton B. Rosenberg, C.S. Maller and William A. MacDonnell

#### APRIL 28

Non-Invasive Facial Cosmetic Procedures Dr. Constantinos Laskarides

#### MAY 5

Dental Treatment for Little Jake: Practical Knowledge and Clinical Skills You Need to Treat Children in Your General Practice Drs. David A. Tesini and Joseph P. O'Donnell

#### MAY 7

Core Concepts: Complex Rotary Endodontics Dr. Rory E. Mortman

#### **MAY 12**

Creating a Raving Fan Practice through Digital Technology: How Digital Technology Creates a Raving Fan Team and Raving Fan Patients Dr. Charles D. Samaras

#### **MAY 19**

Dental Update for the Entire Team: Medical Emergencies Dr. Morton B. Rosenberg

#### **MAY 21**

The Waldemar Brehm Continuing Education Lectureship of the Early Treatment of Malocclusion in Pediatric Dentistry Endowed Fund Presents: "The World of the Growing Child: New Paradigms in Early Treatment of Malocclusion" Dr. Leonard J. Carapezza

#### **MAY 26**

Avoiding Radiographic Misinterpretation Dr. Aruna Ramesh

#### **MAY 28**

Crown Lengthening Workshop Drs. Emilio Arguello and Eduardo Marcuschamer

#### JUNE 2

Legal Information Every Dentist Needs to Know Carol A. Coakley

#### JUNE 4

Fifth Annual Oral Cancer Symposium Oral cancer survivor Eva Grayzel and Drs. Michael A. Kahn, John R. Kalmar, Douglas E. Petersen and Richard O. Wein

#### JUNE 9

Direct Posterior Composites: The Next Level Drs. Simone DeLiperi and David N. Bardwell

#### **JUNE 18**

Clinical Solutions for a Profitable Practice Dr. Robert A. Lowe

All Continuing Education courses are held on Tufts University School of Dental Medicine's Boston campus, unless otherwise noted. For more information about these and other upcoming courses, contact:

**DIVISION OF CONTINUING EDUCATION TUFTS UNIVERSITY** SCHOOL OF DENTAL MEDICINE

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Web: http://dental.tufts.edu



SPORTS FOR SCHOLARSHIP

# WIDE OPEN



Come join the Tufts University Dental Alumni Association for the

## 28th Annual Wide Open Golf & Tennis Tournament

#### Monday, September 20, 2010

Wellesley Country Club 390 Wellesley Ave. Wellesley, Massachusetts

Tufts Dental alumni, faculty, family and friends are invited to participate!

All proceeds benefit the Dental Alumni Student Loan Fund

#### **Schedule of Events**

Golf and Tennis Registration 9:30 a.m. to 2 p.m.

Foursome Pictures 10:45 a.m.

Golf Tournament 11 a.m.

Spa Package 2 to 4 p.m.

**Tennis tournament** 2 to 4 p.m.

**Reception** 4 p.m.

Awards Dinner 5 p.m.

#### **Registration Fees**

**Golf Tournament** \$350/player \$1,300/foursome if signed up together

**Tennis Tournament** \$200/player

**Spa Package** \$260/player

**Reception and Dinner Only** \$75







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### STAGE BITE

Len Radin's careers as a dentist and drama teacher in North Adams, Mass., don't often overlap. In fact, for many years he avoided directing Little Shop of Horrors because of its depiction of a sadistic dentist, a stereotype he has worked to debunk his entire career. In 2005, he gave in. "Theater can be very therapeutic," he says. "You can meet your demons." Radin didn't design the teeth for the show's man-eating plant, pictured here, but he did have fun making high-quality fangs for another production. For more on the story, turn to page 21.