

Tufts

DENTAL MEDICINE

Unbroken

Determined parents put their trust
in a pioneering treatment
for cleft palate



The family that plays together...

The Vermette family—five dentists in all, three with degrees from Tufts School of Dental Medicine—put their heads together and their hands on the buzzer for an appearance in February on the nationally syndicated game show *Family Feud*, in which two families compete to name the most popular responses of 100 people to a survey question.

Ann Vermette, D82, served as the team captain, accompanied by her father, Emile Vermette, D56, twin sister Cheryl Vermette, brother-in-law Donald Farrell, D82, and brother Michael Vermette. Following an audition in Saugus, Mass. (Emile's fuchsia sport coat helped garner some attention), the show's producers flew the family to Atlanta, where they had a chance

to meet the host, Steve Harvey, and see how the show is produced. "We laughed so hard," recalls Ann Vermette. "Steve Harvey is a hoot."

Although the Vermettes were bested by non-dentist siblings from New Jersey, who were quicker on the buzzer, "the experience was great for us as a family," Ann says. The Vermettes' episode will be re-broadcast on May 15 and July 31; check www.familyfeud.com for times and station information.

Above, Team Vermette: Michael Vermette, Donald Farrell, Harvey, Emile Vermette, Cheryl Vermette and Ann Vermette.

contents

SPRING 2012 VOLUME 16 NO. 1

features

10 Wampanoag Historian

Chester Soliz, D61, was determined that the story of his people, the Mashpee tribe, not be forgotten. So he embraced their past, their present and their future. *By Julie Flaherty*

COVER STORY

14 Unbroken

After their unborn infant was diagnosed with cleft palate, Carol and Garrison Vieira put their faith in Tufts dentists and physicians—and a therapy that had not been done in Massachusetts before. *By Jacqueline Mitchell*

20 Lives of Service

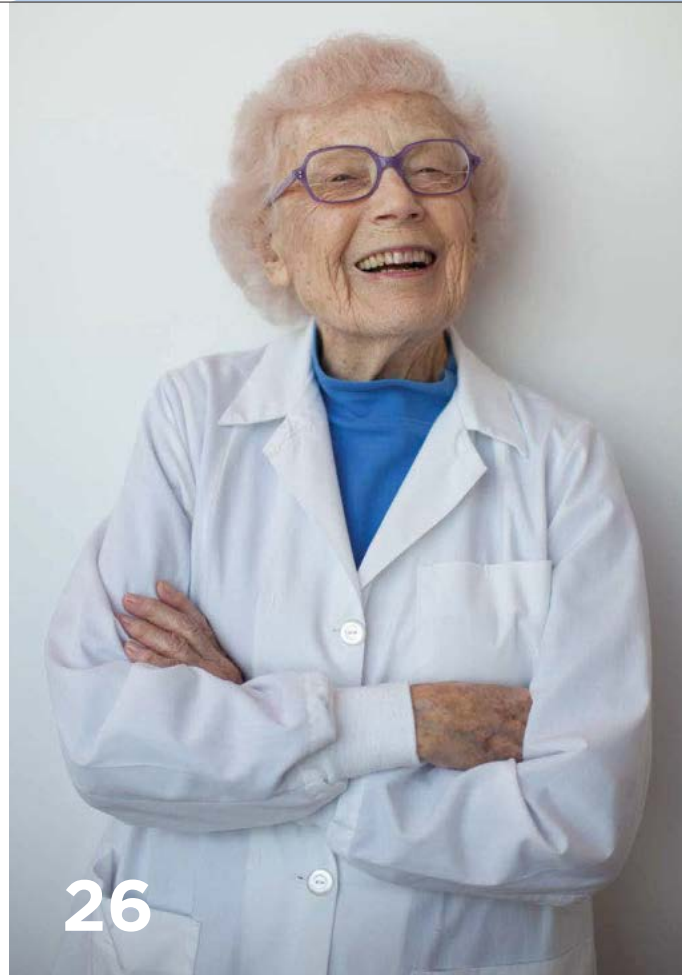
Inga Keithy, D12, a future Navy dentist, didn't have to go far to find an ocean of need among Boston's homeless veterans. *By Jacqueline Mitchell*

26 By the Book

Esther Wilkins, D49, DG66, a rock star in the classroom and the author of the bible of dental hygiene, doesn't like to be called a pioneer, even though her singular career and her latest award would have you think otherwise. *By Julie Flaherty*

30 New Thinking About Children

A multidisciplinary symposium on kids' mental and physical development heralds the arrival of Tufts University's 13th president, Anthony P. Monaco. *By Michael Blanding*



departments

2 LETTERS

3 FROM THE DEAN

4 WORD OF MOUTH

A SCAN OF PEOPLE, PLACES & EVENTS

8 LAB NOTES

A REPORT ON LEADING-EDGE SCIENCE

34 ON CAMPUS

DENTAL SCHOOL NEWS

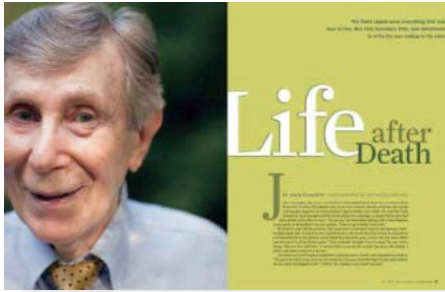
42 ADVANCEMENT

GIVING. GROWTH. GRATITUDE.

44 ALUMNI NEWS

STAYING CONNECTED

On the Cover: The remarkable young life of Nayelli Vieira. Photo by Kathleen Doohar



LEST WE FORGET

The story about John Saunders (“Life After Death,” Fall 2011) was outstanding. Sometimes, all of us forget what it really means to “survive.” I know that from this day forward, whenever I am in a foul mood, I will think of John and how many hurdles he had to overcome to have the life he has led. It is such a personal story but one the world should never forget. Tears were in my eyes as I finished reading it. Thank you.

STEVE BANK, D61
MORRISVILLE, N.C.

I have just been reading the Fall 2011 edition of *Tufts Dental Medicine* magazine and found your wonderful article about my friend and colleague John Saunders. We worked together in the restorative dentistry department at the dental school, and I never had any indication that he was from Poland and had suffered so much in his early years. I am reading a book for a book club about the occupation in Warsaw during World War II, and since reading your article, I can relate more to the conditions there. John was always soft-spoken, very intelligent and considerate and a real gentleman. I knew of the time he was studying law, and he would have been a tremendous lawyer.

MAVIS A. CHAMPION, D72
VERO BEACH, FLA.

The article on John Saunders was a brilliant piece of writing. Congratulations to the writer, Julie Flaherty, for her great story and hard work.

JOSEPH R. KENNEALLY, D81
INTERNATIONAL
COLLEGE OF DENTISTS
DISTRICT ONE REGENT AND COUNCILOR
KENNEBUNK, MAINE

THE SPIRIT OF SERVICE

I want to express my gratitude for working at Tufts these past 10 years. *Tikkun olam* in Judaism refers to the passion of social action, social justice and commitment to the underserved. *Tikkun olam*, for me, is all of the above and more.

Staff and faculty in the pediatric dentistry department hold similar commitments based on diverse beliefs. [Although I could not attend the university-wide employee appreciation luncheon] on March 7, I celebrate in spirit and in my heart the great opportunity I continue to have to teach children, their caregivers and, yes, dental students.

Cancelling the children’s appointments [to attend the luncheon] would have countermanded my efforts through the years to educate children and caregivers to keep their appointments and to continue to improve and maintain their dental health.

GINGER BURNS
DENTAL HYGIENIST
DEPARTMENT OF
PEDIATRIC DENTISTRY

CORRECTION *Carole A. Palmer, Ed.D., R.D., G69, was inadvertently left off the Dean’s Inner Circle list of donors in the 2010–11 Record of Giving, a separate publication of the Office of Dental Development and Alumni Relations that was distributed last fall.*

TALK TO US

Tufts Dental Medicine welcomes letters, concerns and suggestions from all its readers. Address your correspondence, which may be edited for space and clarity, to Helene Ragovin, 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 helene.ragovin@tufts.edu.

Tufts

DENTAL MEDICINE

VOLUME 16, NO. 1 SPRING 2012

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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:
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Tufts University Office of Publications
80 George St., Medford, MA 02155



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Bringing Tufts' Ideals to Life



GREETINGS! IT HARDLY seems possible that I have been in Boston for eight months. As the saying goes, time flies when you're having fun! The weather has been kind; the warnings of several colleagues and friends about the hazards of a New England winter fortunately did not come true.

My time here so far has been spent in myriad ways: from learning about the wonderful family that is our School of Dental Medicine, to traveling to different parts of the country to meet many of our alumni and hear their stories and remembrances of their time in Boston, to understanding the complexities of our institution and the many day-to-day activities that we undertake.

This issue of our magazine brings you stories about the many facets of the lives of our students, faculty, staff and alumni. It is particularly refreshing to read about the care and attention afforded to our veterans, a population of individuals who have given of themselves in service to our nation and yet now exemplify the problems that many of the underserved in this country face (see "Lives of Service," page 20). Nowhere are the ideals of community service that Tufts University upholds better

illustrated than in the contributions of Inga Keithly, senior class president, and her student and faculty colleagues to this endeavor. Another story illustrates how this service mission extends to the activities of our alumni, with an account of trips to foreign lands to care for underserved children. We are also treated to a remarkable account of the hard work and perseverance of another of our alumni, Chester Soliz, who has published *The Historical Footprints of the Mashpee Wampanoag*, for which he was recognized with a President's Book Award from the Florida Publishers Association. You can read about his American success story on page 10.

You will also read about some of the research activities at our school, from participation in the Presidential Symposium on Child Development to the outstanding work of our faculty and students. The annual Bates-Andrews Day was a great success. It underscores the quality and quantity of our student research efforts, a fact in evidence at this year's meeting of the American Association for Dental Research, where the school received an award for the greatest number of student abstracts accepted for the conference—an outstanding achievement.

Finally, as we approach the graduation festivities for the Class of 2012, let me take this opportunity to congratulate our students on their many achievements and wish them the very best as they embark on the next phase of their careers.

A handwritten signature in black ink, appearing to read "Huw F. Thomas". The signature is fluid and cursive, with a long horizontal stroke at the end.

HUW F. THOMAS, B.D.S., M.S., PH.D.
DEAN AND PROFESSOR OF PEDIATRIC DENTISTRY

Oh, the Things That He Found!

Seuss scholar brings seven lost stories to new generation of readers by Julie Flaherty

SOMETIME AROUND 2001, CHARLES COHEN, D87, AN ARDENT COLLECTOR of Dr. Seuss paraphernalia, noticed that occasionally he would come across someone with a fond childhood memory of a Seuss story he had never seen before—stories with titles such as “Tadd and Todd” and “Gustav the Goldfish.” If these were genuine Dr. Seuss stories, Cohen asked himself, wouldn’t they be in a museum or a collection? Maybe they are parodies, he thought, or misattributions.

Being prone to obsession, Cohen, a general dentist in South Deerfield, Mass., had to know for sure. He researched and cross-referenced and finally found himself sitting down at the Boston Public Library with a stack of old *Redbook* magazines. To his delight, there were the stories, complete with infectious rhythms and fantastical drawings as true to the aesthetic of Theodor Seuss Geisel (Dr. Seuss’s real name) as any Cohen had seen. Who else could create such bizarre creatures as an Ikka, a Grickle and a Nupper? And there was no mistaking the Seussian moral in *The Bippolo Seed*, where the titular kernel promises to grow into a wish-granting tree for whoever plants it. The literal lucky duck who finds it at first makes a

humble request for some duck food, but is soon goaded into wishing for everything under the sun:

*I'll wish for ten bicycles made out of pearls!
And 800 muffs that we'll sell to small girls!
I'll wish for some eyeglasses! Nine hundred pair!
And one thousand shirts made of kangaroo hair!*

“The discovery was thrilling—I was reading Dr. Seuss stories that few people even knew existed!” Cohen writes in his introduction to the book *The Bippolo Seed and Other Lost Stories* (Random House, 2011), a new collection of seven nearly forgotten Dr. Seuss children’s tales that Geisel wrote and illustrated for *Redbook* between 1950 and 1951.

These are not unfinished manuscripts that Geisel abandoned or napkin sketches that someone found in a drawer. The poems, drawings and attendant morals stand up to the high standards of Geisel’s later work, Cohen says, and are telling examples of a transitional time in Geisel’s writing. Up to that point, Geisel, who had made a successful career in advertising and cartooning, had focused mainly on the illustrations

in his children’s stories. Of the 10 Dr. Seuss stories he had published, only four included rhyming.

Then, in 1949, Geisel met a boy, reportedly no more than age 3, who could recite

The stories in *The Bippolo Seed and Other Lost Stories* were unearthed by Charles Cohen, D87, a Seuss collector and scholar.



Dr. Seuss's *Thidwick the Big-Hearted Moose* by heart. It gave Geisel a new appreciation for how the distinctive sound of his stories could encourage children to want to learn to read. So in between his published books, Geisel experimented by writing the magazine stories that created for parents to read aloud to their children.

Cohen, in discovering this buried treasure, was on his way to being discovered, too. After acquiring all the magazines he needed to complete his collection, he began selling the duplicates on eBay. One of his customers was Cathy Goldsmith, a name Cohen recognized from reading a Seuss biography.

"Are you *that* Cathy Goldsmith," Cohen wrote to her, "the one who art-directed some of Ted Geisel's last Dr. Seuss books for Random House?"

"Busted," wrote back Goldsmith, who still worked at the publisher.

At first, Random House wasn't sure what to make of Cohen. "At worst, I was some kind of con artist," he says. "Why did some dentist in western Massachusetts seem to know so much about Dr. Seuss, things that his publishers didn't know?" But they soon learned that Cohen was not only the owner of the largest private collection of Seussiana in the world, but a veritable scholar of Geisel's work.

Goldsmith and Cohen talked about publishing some of the magazine stories, but first they collaborated on *The Seuss, the Whole Seuss and Nothing but the Seuss* (Random House, 2004), Cohen's visual biography of Ted Geisel. Then Cohen provided images and commentary for the 50th-anniversary special editions of *How the Grinch Stole Christmas* and *Yertle the Turtle and Other Stories*. Finally, it was time for the "lost" stories.

But these may not be the last. Cohen says there are enough good magazine stories left to fill another book one day. Fans of *Horton Hears a Who* will just have to hope that *Horton and the Kwuggerbug* gets its chance to greet a new generation of children.



You Never Know Who You'll Run Into...

When Bryan Lyons, D95, finished his first Ironman triathlon last fall, he knew that the 70 supportive friends and family members who watched him compete in Tempe, Ariz., had always been behind him. What he didn't find out until later was that another Tufts dentist was also behind him.

Lyons, a general dentist in Methuen, Mass., participated in his first triathlon in 2006. In November 2011, after a year of training, he took on the exponentially daunting Arizona Ironman—a 2.4-mile swim, followed by a 112-mile bike ride, topped off with a 26.2-mile marathon. He finished in an impressive 12 hours, 12 minutes and 5 seconds. (The current record set by a professional Ironman in 2011 is just over eight hours.) "It was the most amazing day," he says.

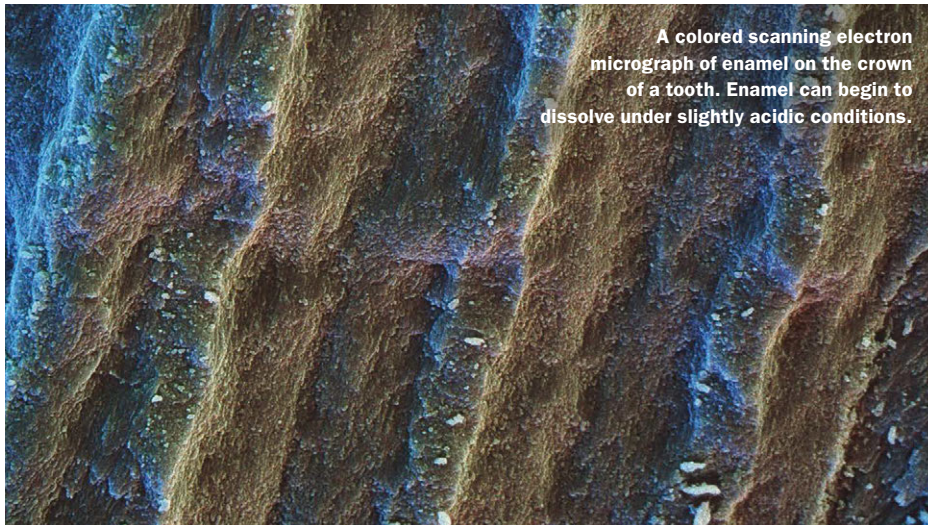
Back at home, Lyons watched the official video of the end of the race. As he saw himself cross the finish line, he heard the announcer read his name, hometown and profession. Seconds later, he was thunderstruck to hear another dentist announced. "I checked the results and looked her up," says Lyons.

Shandra Lee, D03, DG05, was the runner behind him. So Lyons gave her a call. An endodontist who lives in Arizona, Lee finished the race—also her first Ironman—in 12 hours, 12 minutes and 9 seconds, just behind Lyons.

"It's pretty amazing that two people from Tufts finished [the same] Ironman within four seconds of each other," says Lyons.

"It's a pretty cool coincidence," Lee agrees. In addition to their shared athleticism, Lee also admired Lyons' detective skills: "I thought it was the funniest thing that he was able to track me down, especially from opposite ends of the country."

—JACQUELINE MITCHELL



A colored scanning electron micrograph of enamel on the crown of a tooth. Enamel can begin to dissolve under slightly acidic conditions.

What Lies Beneath

Some foods and beverages eat away at protective tooth enamel
by Jacqueline Mitchell

URBAN LEGEND HAS IT THAT A CAN of Coke will strip the rust off a nail or clean the tarnish off a penny. We'll leave those experiments to the *MythBusters*, but one thing is certain: colas, sodas, sports drinks, wine and even fruit juices can damage teeth.

It's not just the copious amounts of sugar in these drinks that cause problems. Most sodas contain phosphoric acid, a preservative, or citric acid, for flavor. These chemicals lower the pH levels in soft drinks to about 2.5 (on a scale where 7 is neutral and lower numbers indicate increasing acidity). Vinegar and wine score almost as low as soda, while lemon and lime juice, with a pH of less than 2, are nearly as corrosive as battery acid.

That's bad news for tooth enamel, which begins to dissolve in just slightly acidic conditions. Repeated exposure to acids will strip the teeth of their protective enamel, leaving them vulnerable to cavity-causing bacteria.

It's not clear how many people suffer from acid erosion, but it could be as high as 20 percent and is likely increasing, says Athena Papas, J66, professor of public health and community service and cohead

of the Division of Geriatric Dentistry at Tufts School of Dental Medicine. "We are getting better at defining erosion, and it's becoming much more obvious," she says.

Extra shiny amalgamate fillings or fillings that stand up higher than the tooth are just two telltale signs of acid erosion, she says. Eventually, the yellow tint of the dentin layer that lies beneath enamel may begin to show through, or the tooth may change shape, losing its structural integrity.

"The way to avoid acid erosion is to avoid frequent contact of teeth with acid," says Carole Palmer, G69, who heads the Division of Nutrition and Oral Health Promotion at the dental school.

Avoiding low pH products, such as soft drinks and sour candies—and even chewable vitamin C tablets—is definitely a step in the right direction, says Palmer. But many acidic foods, including fruits and vegetables, are part of a healthy diet. So researchers suggest, for example, using a straw to minimize contact between acidic beverages and tooth surfaces. Chasing acidic drinks or meals with plain water or milk also will help restore the pH balance

in the mouth. And not eating in between meals can help, too, because it allows saliva to neutralize acids in the mouth.

For some people, health issues can compound the damage done by acidic foods and beverages. Because saliva serves as a natural anti-bacterial rinse, patients who experience dry mouth are at increased risk for acid erosion, says Papas. Many prescription medications, including those for high blood pressure and depression, decrease salivary flow.

A relatively rare autoimmune disorder that affects the salivary glands, Sjögren's disease, also causes severe dry mouth. Papas, who conducts research on Sjögren's and works with elders who often take multiple medications, estimates as many as 60 percent of patients she treats suffer from some degree of acid erosion.

Dentists should be on the lookout for erosion, Papas says, because specific wear patterns may be an indicator of other health problems. Erosion on the tongue side of the front teeth may indicate frequent vomiting and is sometimes seen in bulimics. Deep craters, known as cupping, on the chewing surfaces of molars could signal gastroesophageal reflux disease (GERD), in which the digestive juices surge into the throat and mouth, bathing the back teeth in hydrochloric acid. Because many GERD patients are asymptomatic, dentists are often the first to diagnose the condition, Papas says.

Addressing any medical issues in your patients is the first step in preventing further erosion, says Papas. Prescription-strength fluoride rinses and remineralizing solutions can help reverse erosion, while varnish applied during a dental visit can protect the teeth from acid and cavities alike.

And that often-dispensed advice to brush after every meal might not be so well-advised. Using a toothbrush in a low pH mouth may do more harm than good, spreading enamel-eating acid throughout the mouth. A 2006 study in the journal *Caries Research* suggests that waiting 30 to 60 minutes after a meal to brush will give saliva a chance to do its job.

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

the **d** list

A smattering
of dentistry tidbits
to inform, amuse
and amaze

#1 Tufts' ranking among dental schools for the number of student abstracts accepted for the 2012 annual meeting of the American Association for Dental Research. Forty-nine abstracts were chosen for the meeting, held in Tampa, Fla., in March, and the dental school received \$300 for its student research group.

\$5,000

The amount of funding from the National Hearing Conservation Association Foundation for a study by an audiology doctoral student at East Tennessee State University on whether the high-pitched sound of a dental drill causes hearing loss in dentists.

16% Amount by which dental employment is expected to grow through 2018, according to the U.S. Bureau of Labor Statistics.

3 inches Size of a canine tooth belonging to Kunali, a full-grown Siberian tiger at the Alaska Zoo that underwent a root canal last October. Other animals that have received endodontic treatment at the zoo include a polar bear, another tiger, a wolverine, a wolf and a snow leopard.



14th Century

When the French surgeon **Guy de Chauliac** invented a tool used to extract teeth, known as the **Dental Pelican**. It was so named because the "claw" resembled the top of a pelican's beak.



75.3%

Percentage of residents in Massachusetts who visited a dentist from September 2010 to September 2011, according to a Gallup poll—the highest of any state in the country. Residents of Mississippi were least likely (51.9%) to have been to the dentist during the same period.

£19,000

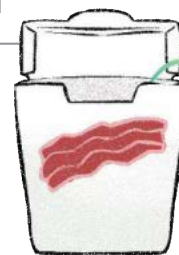
The price fetched at auction last year, in England, for **John Lennon's molar** (that's about \$31,200). Lennon reportedly gave the tooth to his housekeeper sometime in the mid-1960s. Imagine there's no limit to what a Beatles fan will collect.

8

Number of players on the **Tufts ChowdaBoys**, the dental school's flag football team, which won the Northeast Regional Tournament in December 2011.

27.3

The number of yards in a container of waxed, bacon-flavored dental floss, available at assorted online vendors for about \$5.



DISEASES WITH A KINSHIP

Tufts researchers explore hormone treatment for diabetes and periodontitis by Helene Ragovin

A PATIENT, A MARINE

Corps pilot, arrived in great spirits for his exam. But after chatting a bit with the dentist, Terrence Griffin, the officer mentioned he'd been feeling a little tired.

Then Griffin looked in his mouth. "He had advanced periodontal disease," recalls Griffin, D71, DG75. Like all military pilots, the patient had undergone a complete exam just six months before, and his oral health had been top-notch. And then the pilot confessed something else: He could no longer see the numbers marking the airplane navigation lanes on the runway.

A blood test confirmed what Griffin had suspected: The Marine had diabetes. And while he had ignored other symptoms—the tiredness, the blurred vision—he couldn't hide the evidence in his mouth.

The correlation between periodontal disease and diabetes has been well-documented, most recently in the cover story of the January 2012 issue of the *Journal of the American Dental Association*.

About 25.8 million Americans have diabetes—and about 7 million of those don't even know it, according to the Centers for Disease Control (CDC). Because systemic diseases such as diabetes leave tell-tale clues in the mouth,

dentists have to be "on the front line" in diagnosing new cases, says Griffin, a periodontist.

That connection has spurred research to understand the biochemical mechanisms that drive the relationship and also to explore treatments. Jake Jinkun Chen, DI09, A12P, professor and director of the dental school's Division of Oral Biology, is investigating the role of adiponectin, a hormone derived from fat tissue, in periodontitis associated with Type 2 diabetes. His work is supported by a \$1 million-plus grant from the National Institutes of Health.

Type 2 diabetes, also known as non-insulin-dependent diabetes, is a form of the disease

in which the body cannot produce enough insulin, the hormone necessary for glucose metabolism, or the body's cells cannot properly use it. (In Type 1 diabetes, the pancreas does not produce any insulin.) Once known as adult-onset diabetes, the incidences of Type 2 are increasing in children and adolescents, according to the CDC.

Periodontitis, the inflammation and infection of the ligaments and bones that support the teeth, is twice as prevalent in diabetics as in nondiabetics, says Chen. And in those with Type 2 diabetes, "periodontal disease is more severe and resistant to treatment," he says, because Type 2 diabetes "triggers the release of excess

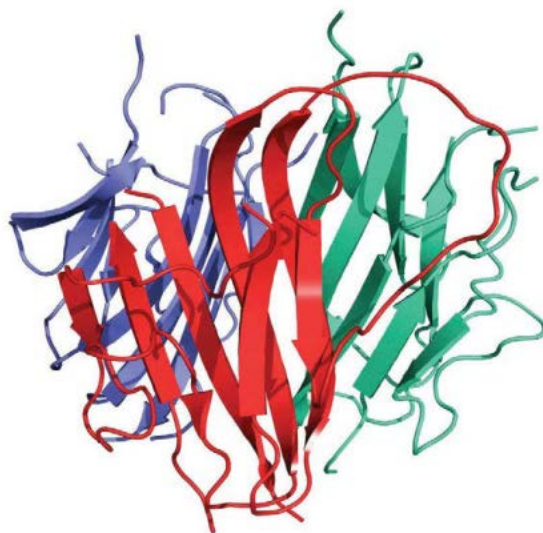
inflammatory factors, which in turn stimulate osteoclasts," or cells that erode bone.

The hormone adiponectin was identified in the mid-1990s and appears to play a role in Type 2 diabetes, obesity and cardiovascular disease. Higher levels of adiponectin appear to lower risk for Type 2 diabetes, because it makes cells more sensitive to insulin, Chen says, noting that adiponectin has been used to treat diabetes in mice. The hormone also has anti-inflammatory properties, which are important for tamping down the inflammation associated with periodontitis. "It's a very useful molecule," he says.

Preliminary studies by Chen and others have established a strong correlation between low levels of adiponectin and the development of periodontitis. Chen's lab was the first to report evidence that adiponectin promotes bone formation by inhibiting osteoclast formation and bone loss.

"Adiponectin is one stone that can kill four birds," Chen says. That is, it increases insulin sensitivity, acts as an anti-inflammatory agent, promotes bone formation and inhibits bone loss.

Using an animal model, Chen and his colleagues are studying the anti-inflammatory properties of adiponectin on periodontal disease. This would be a major innovation in the treatment of periodontitis, which traditionally has focused on controlling infection. They're also looking to



A molecular model of the hormone adiponectin, which may have a role in Type 2 diabetes and gum disease.

determine whether the hormone can help repair damaged gum tissue.

“In the future, we envision adiponectin as a therapeutic agent for regeneration of damaged tissues in patients with diabetes-associated periodontitis,” he says.

He calls periodontitis “one of the most pressing issues in dentistry,” and in public health, for that matter.

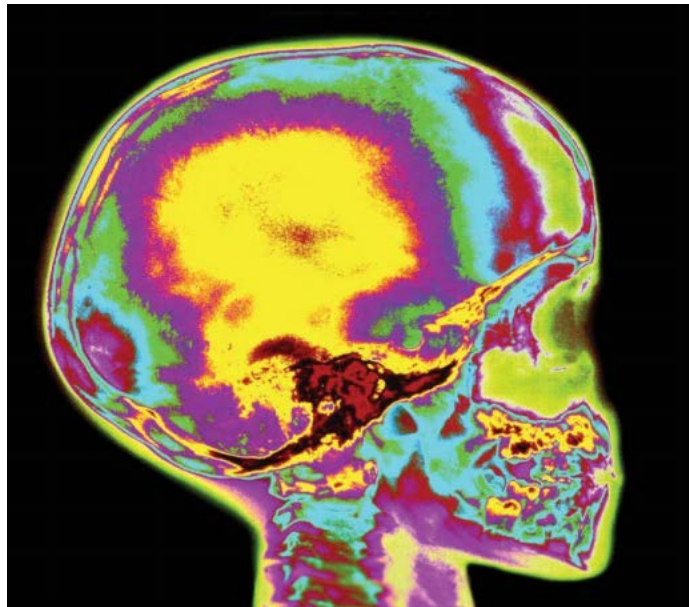
“Almost everybody over age 40 has some kind of periodontal problem,” Chen says, which can lead to the bone loss, and eventually tooth loss, associated with periodontitis.

For the dental practitioner, few cases are quite as stark as the Marine pilot who developed a severe case of diabetes in a matter of months. Clinicians need to be vigilant in identifying patients who have inflammatory periodontal disease and do not respond well to an initial line of treatment that includes cleaning, scaling and root planing, Griffin says.

“That would tell us, perhaps, that we should investigate if the patient has a systemic component, and one of the first things we look at is diabetes,” he says.

Conversely, physicians need to be aware of periodontal disease as a barometer of a patient’s overall health, Griffin says. “I think it’s wise for physicians to ask about dental conditions. It works both ways.”

Helene Ragovin, the editor of this magazine, can be reached at helene.ragovin@tufts.edu.



The eruption of permanent teeth in the jaw (in yellow) can be seen in this X-ray of a child’s skull.

OBESE KIDS, EARLIER TEETH

A NEW TUFTS STUDY finds that obese children get their permanent teeth earlier than kids who are not overweight—research that has important implications for the initiation and frequency of pediatric dental care.

The early eruption of permanent teeth increases the risk for cavities, malocclusion and crowding, as well as temporo-mandibular joint (TMJ) disorder, says Aviva Must, the Morton A. Madoff Professor and chair of public health and community medicine at Tufts School of Medicine, who was the principal investigator on the study.

The research, published in February in the journal

Obesity, “indicates the need for comprehensive and frequent oral evaluations in obese children to avoid the health pitfalls that accompany early eruption of permanent teeth,” says Must, N87, N92, who coauthored the study with colleagues at Tufts, the Frances Stern Nutrition Center at Tufts Medical Center and HarvestPlus International Food Policy Research Institute.

The study compared the timing of tooth eruption in obese and nonobese children. The researchers analyzed data on 5,838 children, ages 5 to 14, collected as part of the National Health and Nutrition Examination Survey (NHANES) between 2001 and

2006. The NHANES survey, conducted by the Centers for Disease Control, assesses the health and nutritional status of Americans.

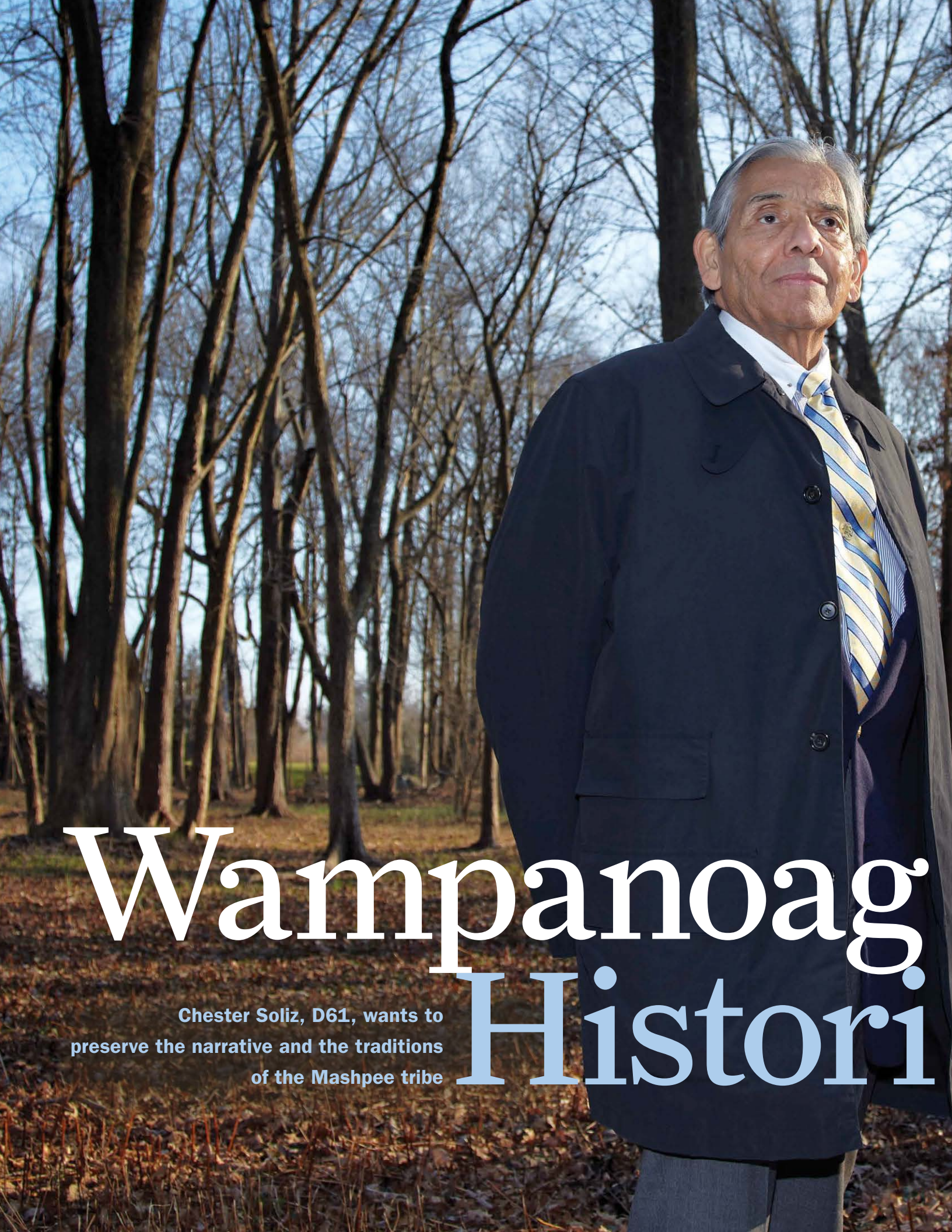
They found that obese children, on average, had 1.44 more permanent teeth at any age than nonobese children. Age does figure in, Must says, with the greatest number of permanent teeth seen at age 10, when the obese children had an average of three more teeth than their nonobese peers.

“All children are more susceptible to cavities when their first permanent teeth come in, because these are not fully mineralized,” says Stanley Alexander, D75A, professor and chair of pediatric dentistry at Tufts School of Dental Medicine.

Weight is not the only factor that can affect children’s tooth eruption, Alexander says, noting that sociological, lifestyle and genetic factors also play a role.

Roughly 12.5 million Americans ages 2 to 19 are obese, according to the CDC. These latest findings also contribute to evidence linking obesity to other aspects of accelerated growth, says Must, noting that obese children are taller before puberty than their peers, and they become sexually mature at an earlier age.

—GAIL BAMBRICK



Wampanoag Histori

Chester Soliz, D61, wants to preserve the narrative and the traditions of the Mashpee tribe

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BY JULIE FLAHERTY PHOTOGRAPHS BY BRAD DECECCO

CHESTER SOLIZ, D61, GREW UP IN THE Wampanoag community in Mashpee, Mass. Of the 269 people who lived in Mashpee during the '30s and '40s, only one family was non-Indian. But the history Soliz learned in school never mentioned the Wampanoag, or much about Indians at all. When Soliz pointed this out to his mother, a woman who could trace her lineage back four centuries to the great sachem Massasoit, she shrugged: *That's just the way it is.*

He knew there was a history, because the tribal elders would recount the stories, as was the oral tradition. "I realized early on, what happens when Uncle Lee dies? And what happens when Uncle Brazil dies? The history goes with them," Soliz says. "And that's not right."

By the time Soliz was in his 70s, historians had documented the stories of many Western Indian tribes, but not the Wampanoag. So

Soliz, a retired general dentist and real estate developer, took it upon himself. He spent eight years trolling libraries and museums, dissecting history books, scouring the Massachusetts Archeological Society collections and interviewing tribal elders. He looked through tattered letters, stained maps, charred posters and torn pages from books and diaries. "When I found there were different versions of a particular incident, I put both down," he says.

The result was *The Historical Footprints of the Mashpee Wampanoag*, which he published last year. It is primarily a tale of oppression and injustice, of a people deceived at every turn for hundreds of years. That legacy left Soliz, like most Wampanoag, with few advantages. But that didn't stop him from pursuing an education, a dental career and a dream of restoring the Wampanoag to their rightful place in American history.

BEYOND MASHPEE

As a child, Soliz, whose Wampanoag name is Blue Duck, lived with his mother and brother in a four-room house in Mashpee. (His father, a seaman from Colombia and a South American Indian, died when Soliz was 3.) By the time he was 8, he had learned to hunt and trap with the tribe elders, bringing home deer, rabbit, raccoon, pheasant, partridge and duck. His mother kept a garden. And of course there were fish in the bays—bass, blues, scallops, clams, quahogs and oysters—more plentiful than they are now. If a neighbor went blueberry picking, she would share a pot of extras. “We never thought of a food shortage,” Soliz says. “Everybody cooked, and everybody cooked well.” It was a subsistence life, not far removed from the way his ancestors had lived—although they did have electricity and a telephone party line, which his mother paid for by working as a domestic.

Even though he loved Mashpee, Soliz could see at a young age that his boundaries were limited. The primary employment was working as groundskeepers or handymen for the white people who owned large Cape Cod estates. Few people moved away from Mashpee, and very few went to college.

Soliz had other ideas. “I realized that I needed to move on, because if not, I would be circumscribed in this small area,” he says. When he told his high school guidance counselor that he was interested in taking college-track courses, the man looked at him askance and asked, “Are you sure?”

“Well, I’m not sure,” Soliz replied. “But I think I would like to try.”

He did well—so well, in fact, that after high school he was given the chance to attend a college preparatory school for a year, and then was accepted to Johns Hopkins University. He worked part-time to help pay for it, most notably as an acid cleaner in a laboratory, where he used boiling sulfuric acid to disinfect Petri dishes and test tubes. He earned 50 cents an hour.

It was the family dentist who inspired Soliz’s career choice. “My mother didn’t make a lot of money,” he says, remembering her pride at earning \$1,700 in a good year. “But she always made sure that we saw the doctor once a year, and we always went to the dentist. He had a nice way about him, and he seemed to be enjoying life.” So Soliz applied to Tufts



Chester Soliz beneath a portrait taken when he received his fellowship in the American College of Dentistry.

School of Dental Medicine, class of 1961.

He had married his childhood sweetheart, fellow Wampanoag Barbara Blake Bearse, soon after high school. They remained close to their families in Mashpee and Hyannis, often jumping on the highway after his dental school classes to spend weekends on the Cape. The year he graduated, Soliz entered the U.S. Air Force Dental Corps and was assigned to McGuire Air Force Base in New Jersey. While he was completing a three-year internship, Soliz, who says he always needs to have a “hobby,” decided to build a motel in Mashpee that would welcome people of any color or nationality.

Even with his dental degree in hand, and a prosperous career in his future, Soliz was in danger of being held back by his Indian heritage. He bought a building that was slated for demolition—an old German prisoner of war mess hall from Otis Air Force Base—and had it moved to a piece of land he had acquired in Mashpee. He estimated he would need about \$100,000 to turn the building into motel units. So he applied for a bank loan. He was rejected. He tried again, at four other banks, but was given a variety of excuses for why they wouldn’t finance the project.

“What I didn’t know at the time was that they had redlined the area, because the banks felt, and maybe rightfully so, that the Indians didn’t make enough money to pay them back,” Soliz says. “They should have said that, though.” Instead, they let him go through the application process repeatedly.

He had no choice but to do the work on his own, window by window, door by door, even as he completed his Air Force service as a captain and started a teaching fellowship in pediatric dentistry at the Murray & Leonie Guggenheim Dental Clinic in New York City. What should have taken six months to finish took six years. But La Plaza del Sol motor lodge would become a Mashpee fixture. Even when Soliz and his wife chose to settle in Rye Brook, N.Y., to start his dental practice in nearby Yonkers and to raise their five children near the educational and cultural advantages of New York City, they would return every summer to run the lodge and take part in the Wampanoag powwow.

A gentle and self-effacing man, Soliz downplays the fact that he was the first Mashpee Wampanoag to earn a doctoral degree. “It wasn’t that I did anything great,” he says. “It’s just that I decided to do it.”

‘MORAL OUTRAGE’

His book, however, is unswerving. As Soliz puts it, the book is “forcefully written, sometimes with a clarion call of moral outrage when trying to expose some of the dark roots of European-American arrogance.”

He writes that the subjugation of the Wampanoag began just a few years after the Mayflower landed in Eastham, Mass., in November 1620. The Wampanoag, who numbered 40,000 and whose territory ranged from Boston to Bristol, R.I., were the first Native Americans to greet the English settlers, and they shared their food and skills to help the white men and women survive.

But once the settlers found their footing, they began using military force to push the Indians onto smaller and smaller parcels of land. On Cape Cod, that meant a plantation marked by swamps and marshes. “They moved us to a piece of property that they would least want to use or keep—the worst piece of property on the Cape—and that happened to be Mashpee,” Soliz says.

Some Wampanoag adopted the Christianity practiced by the settlers. The missionaries resettled these Indians into “praying towns,” including one in Mashpee. Thus the first Bible ever written in the United States was a 1663 translation into Algonquin Wampanoag by a Puritan missionary. Mashpee was also the site of the first Indian church built in the United States, in 1673. Although the colonists used religion to subdue the Indians and submerge their traditions, it may have ended up preserving them in the conflict that was to come.

As the colonists became hungrier for land, tensions grew, until a bloody series of clashes known as King Phillip’s War erupted between the colonists and the Indians in 1675. The “praying Indians,” who were treated as traitors by other Wampanoag, but also shunned by the colonist forces, stayed largely neutral. The war took thousands of lives and marked the end of a significant Indian presence in New England. Most of the 400 Wampanoag who survived and were not sold into slavery eventually moved or returned to Mashpee, although some remained on Martha’s Vineyard and Nantucket.

Soliz marvels that over the next centuries, the Mashpee Wampanoag remained largely intact as a community, still living on their

ancestral land, despite their hardscrabble existence as paupers and wards of the state. Economic discrimination, including the banks’ redlining policies, kept the rate of economic growth in Mashpee the lowest of any incorporated community in Massachusetts, Soliz says. Today, less than half the tribe’s 2,000 members have a high school diploma, and half live at or below the poverty line.

The settlers’ plundering of America’s indigenous peoples continues to be widely ignored, Soliz says, and it is time to have the truth known, “so that we can take our rightful place in American society with full respect for our traditions and history.”

Part of that respect should include restitution from the U.S. government, Soliz says. If the Indians were fully compensated for what was taken from them, “it would bankrupt the country,” he says, “but the government could go on to the 275 substandard reservations throughout the United States and build professionally regulated and maintained hospitals and schools that would positively impact those tribes. That’s something they *could* do.”

GAMBLING ON THE FUTURE

The late 20th century found the Mashpee Wampanoag under pressure again. All around them developers were buying up land to create idyllic seashore properties, until finally Mashpee itself was targeted. In 1976, the tribe filed a lawsuit against the town and the developers, claiming ownership of the town’s undeveloped land. They lost, partly on the grounds that they were not a federally recognized tribe. That set in motion a quest for federal recognition, an arduous process that did not come to fruition until 2007.

That was an enormous milestone, Soliz says, because it opened a channel to the Bureau of Indian Affairs, a source of funding for education, health care and housing. But it also opened the door to a Pandora’s Box: the casino question.

Seeing that casinos had brought money and jobs for federally recognized tribes in Connecticut, the Mashpee tribal leadership began working with international financiers to lay the ground for their own resort casino in Massachusetts. The tribe leadership is currently racing against a July 31 deadline set by the state to find a town that will host

the resort, work with an investor to buy the land and put it into federal trust and come to an agreement with the governor on sharing profits with the state. At the same time, the tribe is trying to shake off the taint of corruption left from its previous leader, who was sentenced to three and a half years in prison for financial improprieties.

Soliz is not a fan of the casino proposal. Besides his concern that gambling can hurt families, he is not convinced that New England has the economic capacity for another casino, or that a gambling enterprise could improve the quality of life for the Wampanoag. “The Indians are not the ones getting their pockets lined; it’s the investors,” something he understands from his own real estate ventures. The casino investors “are putting their money in, and they are going to want their return. I just don’t think it is something that will benefit the tribe as much as the tribal leaders are expecting,” he says. Soliz points out that the tribe is already millions of dollars in debt to former and current casino investors, having put money into legal, lobbying and design efforts for a casino that is far from a done deal.

As his book strives to emphasize, the Wampanoag have more to offer than slot machines and black jack, both culturally and spiritually. “We judge people by their character rather than their wealth,” Soliz says. “We try not to jump to conclusions, but give reason its moment. And we try to avoid being led by our emotions,” he says. Indians also meditate, to establish inner balance and tranquility and eliminate worry, which Soliz calls “a feeling of defeat.”

Has he managed to eliminate worry for himself?

“Easier said than done, you know,” he replies.

These days, his worry is mainly for the future of the Wampanoag. Although education and career led him away from Mashpee, he has never lost his devotion to his people and their welfare. That is one reason the tribal medicine man gave him the Indian name Blue Duck. He flies off—but he always returns. **TDM**

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UNIB

The diagnosis was cleft palate. How one family entrusted their baby to

BY JACQUELINE MITCHELL

THE ISLAND OF MARTHA'S VINEYARD SITS SEVEN MILES OFF CAPE COD, a 45-minute ferry ride to the mainland and then a 65-mile drive to Boston—but it might as well be an ocean away if something is terribly wrong with your child. Carol Vieira was four months pregnant with her third baby when a routine ultrasound revealed something wasn't quite right. Her doctors at the island hospital suspected cleft palate.

A lifelong islander, Carol, an occupational therapist, and her husband, Garrison, a corporal on the West Tisbury police force, took the news about as well as any expectant parents could. "No one ever wants to hear that their child will have to suffer in any way, and that was very true for us," says Carol. But cleft palate often means there are other health problems, some of which can't be ruled out until after a baby is born. "Those question marks caused more stress for us," she says.

The couple ended up in Boston, at the Cleft Lip and Palate Clinic at the Floating Hospital for Children at Tufts Medical Center, where the

diagnosis was confirmed. There, the Vieiras met two Tufts pediatric dentists, who offered a way to ease their anxiety about their unborn baby, a girl. The couple learned about a relatively new orthodontic therapy that would make the eventual surgery to repair their baby's cleft palate less complicated.

If the Vieiras agreed, their baby, due in February 2011, would be the first to undergo the procedure, called nasal alveolar molding, or NAM, at Tufts Medical Center, the only Massachusetts hospital that offers the treatment. Their daughter's split palate would be gently moved together, millimeter by millimeter, over the first few months of her life.



ROKEN

dentists and surgeons to undertake something that had never been done in Massachusetts



PHOTOGRAPHS BY KATHLEEN DOOHER

The dentists, Serena Kassam, A02, D05, and Jessica Chiang, DG09, surely would have understood if the Vieiras decided they didn't want their baby involved in something so new, never mind the fact that she would be *the first*. But in Carol and Garrison Vieira, who had taken in a foster infant just seven weeks before their older daughter, Alyssa, now 2, was born, the Tufts dentists found parents who were resolute in confronting the challenge dealt them. They chose to go forward.

"They presented NAM with such clear and confident authority [that] we never questioned that plan of action. We felt like pioneers," says Carol, whose diminutive features belie a well of inner strength. "Knowing what to expect in terms of her diagnosis, as well as the exact care and treatment that she would be receiving—and that there was already a dedicated team preparing for her arrival—was very reassuring."

EARLY INTERVENTION

Craniofacial malformations such as cleft lip and palate are the most common birth defects in the United States, occurring in one of every 1,000 newborns, according to the National Institutes of Health. Although the cause remains unknown, scientists believe an olio of genetics and environmental factors may be at work. The defect occurs when the nose and upper jaw fail to fuse properly, somewhere between the third and sixth weeks of fetal development. Cleft lip and palate can occur independently or together, and malformations can range from a tiny hole in the roof of the mouth to a more dramatic misalignment of the facial features. A unilateral cleft creates a gaping hole in a baby's face, and the nose may be pushed off center. In a bilateral cleft, the premaxilla, the bony ridge that contains the tooth buds for the upper front teeth, may overly protrude from the mouth, and the nose appears widened and flattened.

Nasal alveolar molding was developed in the 1990s at New York University's Langone Medical Center by an orthodontist, and a plastic surgeon. NAM is becoming the preferred initial treatment for cleft lip and palate because it doesn't require general anesthesia—which should be avoided for babies under 3 months old—and therapy can start a few weeks after birth, when the craniofacial features are quite pliable and growing rapidly.

That early start is one reason NAM is catching on, says Andrew Scott, a pediatric facial plastic surgeon and codirector of the Tufts Cleft Lip and Palate Clinic. "There's a rising community of those who do NAM," says Scott. "Those of us who have seen it in action are all believers."

NAM therapy uses a custom-made acrylic orthodontic plate—much like the retainer many of us wore when our braces came off—to move the two sides of the palate closer together. Surgical tape anchored to the mouth plate and secured across the baby's cheeks exerts enough tension to gradually move the upper jaw and gum ridges into better alignment. Several weeks into the therapy, when the baby's face is a bit more symmetrical, the dentists begin using nasal stents—acrylic balls attached to wires embedded in the mouth plate—to give more shape and structure to the baby's nose. The stents nudge the nasal cartilage forward to create a more natural profile. In traditional cleft palate therapy, the nose remains untouched until the first surgery.

Dentists and plastic surgeons work as a team, adjusting the mouth plate weekly to take advantage of a newborn's rapid growth spurts. The goal is to move the gum ridges, upper jaws and nose, not to their final destination, but into the best possible position for a plastic surgeon to close the cleft lip when the baby is 3 to 5 months old. A second surgery to repair the palate generally happens around the child's first birthday.

Kassam, an assistant clinical professor, and Chiang, an assistant professor, both in the pediatric dentistry department at Tufts School of Dental Medicine, are something of pioneers themselves. With Mohammad Mansoor Ahmed, DG09, the trio helped establish the only two NAM clinics in New England, one at Tufts and one in Rhode Island.

While teaching part-time at Tufts Dental School, Ahmed completed a fellowship in craniofacial pediatric dentistry at Langone Medical Center, where he learned to do nasal alveolar molding from Barry Grayson, one of the coinventors. Kassam and Chiang also learned the technique there.

Ahmed and Kassam established a NAM program at St. Joseph Hospital in Providence, R.I., where Kassam did her residency in pediatric dentistry. When she returned to Tufts, Kassam recruited Chiang to help establish the

first NAM clinic in Massachusetts. "These young faculty really provided the impetus and drive to bring NAM to Tufts," says Stanley Alexander, D75A, professor and chair of pediatric dentistry.

The demand for nasal alveolar molding continues to grow, Kassam says, but there are not enough dentists and surgeons trained in the technique to meet the need. While the NAM itself is not difficult to learn—it's similar to making dentures, Chiang says—it is time-intensive, for the families and for the many specialists who care for the infant during the first year. The Tufts team was trying to identify the ideal first patient in Massachusetts when they met the Vieiras.

FEELING IN CONTROL

NAM combines the best of traditional cleft-repair therapies and eliminates some of their greatest drawbacks. The most common is a mechanical appliance called the Latham device, which is surgically implanted in a baby's palate three months after birth. Once the baby heals, doctors reposition the gum ridges and jaws by turning a screw in the implanted metal device. The technique is often effective, but causes some babies significant discomfort, and some have trouble feeding.

An older treatment, still used for less-severe cases, is lip adhesion, in which a surgeon stitches the edges of the cleft lip together. While this creates enough tension to move the jaw and gum ridges into better alignment before the baby undergoes another surgery to correct the cleft palate, it is still surgery requiring anesthesia, and creates scarring before the final lip repair.

While the larger aim of NAM is to close the cleft as much as possible before palate-repair surgery, there are several short-term gains. The orthodontic mouth plate plugs the hole in the cleft, keeping milk or formula out of the baby's nose and allowing the infant to create enough suction to drink, gain weight and thrive. Scott, the pediatric surgeon, recalls one case in which a baby's bony gum ridges were rotated up into his nasal cavity, blocking his airway on one side. The pediatric dentists used the NAM mouth plate to push the bony ridge out of the way. "That's incredibly important because children must breathe through their nose or they can't eat or drink. So it had immediate functional implications,"

says Scott, an assistant professor of head and neck surgery at Tufts School of Medicine.

Perhaps just as important as the therapy is the emotional benefit to parents of not having to wait to start treatment until their baby is old enough for surgery. Parents of these infants sometimes feel helpless or even guilty, Scott says, unable to do anything to help their fragile newborn. The three-to-five-month wait before their baby can undergo corrective surgery can be unbearably painful. “NAM offers them something to do that feels proactive,” he says. “That can be very helpful for these parents psychologically.”

That was certainly true for Carol and Garrison Vieira. “NAM gave us the opportunity to feel like we had a little control in a

situation where you really don't feel like you have any control at all,” says Carol. When their daughter was born on February 3, 2011, the couple named her Nayelli, a Native-American word that means *I love you*. “We knew she would need a little extra love,” Carol says.

Because cleft lip and palate can interfere with such basic things as eating and learning how to talk, from day one, Nayelli had a team of specialists devoted to her well-being: otolaryngologists, geneticists, audiologists, speech and occupational therapists, psychologists, plastic surgeons, pediatric dentists and prosthodontists. “There are so many different aspects of care for these children. There's just no way to do this without having a team,” says Arnold Lee, an assistant professor of head and neck surgery at Tufts

Medical School and the other codirector of the Cleft Lip and Palate Clinic.

The most crucial members of the team, though, are not dentists or surgeons. Unlike other treatments for cleft palate, NAM depends heavily on the parents' involvement—and that's on top of the weekly clinic visits. The Vieiras had to remove Nayelli's mouth plate once a day to clean it and the inside of her mouth. They had to reattach the surgical tapes properly, making sure there was enough tension to move her features without pulling too hard on the skin. “The good part of NAM, as well as the bad part, is that it requires so much family participation,” says Scott.

“The worst part of it was that she hated it,” Carol Vieira says of the daily ritual. “But it's

“NAM [therapy] gave us the opportunity to feel like we had a little control in a situation where you really don't feel like you have any control at all.”

—NAYELLI'S MOM, CAROL VIEIRA

Carol, Nayelli and Garrison Vieira, at home on Martha's Vineyard.



not a big thing at all. It really isn't. You bathe them once a day, you wash their face, you just add this to the routine."

Not everyone is as determined as Nayelli's mom. "We do have parents who will give up if we don't prepare them well enough," says Chiang, the pediatric dentist.

Since Nayelli inaugurated the Tufts program, four more babies are receiving NAM therapy. A sixth family, overwhelmed by the daily care required for a successful outcome, gave up. That's why the cleft team begins preparing parents early, ideally during prenatal visits, as they did with the Vieiras. Chiang uses a baby doll with a realistic-looking cleft lip and palate and its own NAM mouth plate to teach parents how to care for their baby. That put Carol and Garrison at ease. "We knew what we were coming home with," says Carol.

"Once a family determines they want to work with you, we have to become like a member of their family," says Chiang.

"It's not a staff, it *is* a family. That sounds cliché, but it's true," says Garrison, recalling the times the surgeons rearranged their schedules to see Nayelli when the Vieiras happened to be on the mainland. The dentists frequently adjusted the course of treatment in response to Carol and Garrison's observations or concerns. When Nayelli's cheeks got too irritated from the pressure of the surgical tape, the dentists adjusted the angle so the tape tugged less. That slowed down progress a bit, but Nayelli felt better. "They really did listen to us and respond," says Carol.

A GOOD WEEK

When Francis Pereyra and Perla Zapata arrive at the Tufts clinic with 6-week-old Jayden, it does feel a bit like a family reunion. Jayden's parents are all smiles. After just one week wearing the NAM device, their son's cleft is dramatically smaller.

"Mommy's happy because she can see the results," Chiang says as she eases Jayden onto a child-sized dental chair in the center of the tiny exam room. The boy fusses half-heartedly as Chiang peels the tape off his face and removes the mouth plate. His mother, seated in the corner, clucks at him softly, and the tiny patient drifts off to sleep, even as Chiang and two students who have come to observe, Eunice Lee, D12, and Elizabeth Ackerman, a



Francis Pereyra and Perla Zapata with their son Jayden and pediatric dentist Jessica Chiang at Tufts Medical Center.

postgrad in pediatric dentistry, buzz about the baby. When Chiang measures the gap, it has closed by nearly an eighth of an inch. "You are doing a really good job," she tells the parents more than once.

Chiang exudes confidence and optimism. As she works, she maintains a constant upbeat banter with Jayden's parents, describing what she's doing and cluing them in on what to expect as the therapy progresses. She reaches into her toolkit, brimming with dental impressions, wires, surgical tape and sundry instruments, for a flashlight. As she peers into the baby's mouth, checking for any irritation the mouth plate might be causing, Chiang peppers Jayden's parents with questions about their week. How did the baby eat? Sleep? Tolerate the mouth plate? The boy ate well, his delighted parents report, and that helped him sleep better. Chiang picks Jayden up. "He got a lot heavier," she says with a wide grin as she slides the baby back into his mother's arms.

Cradling the boy's plastic mouth piece in her left hand, Chiang uses a dental drill to sculpt it so it will close Jayden's cleft palate more in the week ahead. She deepens the troughs where his gum ridges sit to nudge those tissues to grow in that direction. She adds putty where she wants to create pressure

to push bony tissue into the trough. To the casual observer, the work seems more art than science. "It can appear to be very mysterious to those of us who don't know what we're doing," says Scott, the surgeon. "Jessica [Chiang] is very adept at it."

Chiang and Scott confer, their heads bowed over the tiny mouthpiece, as they pool their expertise to assure the best possible positioning of Jayden's gum ridges and upper jaw before he undergoes corrective surgery in a few more months. "Being able to do that together every week is an added bonus that's unique to our program," says Scott.

Chiang gently slips the device back into Jayden's mouth and replaces the surgical tape. The baby's cheeks, slightly red from the tape, are full and round, and his chubby feet and hands peek out from his tiny corduroys and button-down shirt. Though he's clearly a good eater, Scott asks his mother to give her son a bottle to make sure the newly adjusted mouth plate won't interfere with his eating in the week ahead. When Jayden begins to drain his bottle, the family is ready to make the hour-long drive back home to Lawrence, Mass. They'll be back next week for another adjustment and progress check. Not every week is so easy, Chiang reminds the couple.



Adam Bottrill, a pediatric dentist from Portsmouth, N.H., who is learning the NAM technique, watches Jessica Chiang as she examines Jayden Pereyra.

“When I see a really big change like this, that’s how I keep going.”

—PEDIATRIC DENTIST JESSICA CHIANG

“It can be discouraging at times,” she adds. Sometimes the gap doesn’t close much. Other weeks a baby won’t or can’t tolerate the device very well. But visits like the one today with Jayden negate any setbacks. “When I see a really big change like this, that’s how I keep going,” Chiang says.

Right now, Chiang is something of a one-woman dental team at the Tufts Cleft Lip and Palate Clinic. Kassam has been on a fellowship in Guayaquil, Ecuador, training a prosthodontist and an orthodontist to do NAM therapy. In Ecuador, cleft palate is more prevalent, about one in every 350 births. This spring, Kassam and her trainees are using NAM to treat 20 babies. Ahmed, who grew up in Dubai, is setting up a NAM clinic at Dubai Health Authority Hospital, where he is a senior specialist in the pediatric dentistry department.

CELEBRATIONS ALL AROUND
At birth, the cleft in Nayelli Vieira’s palate measured 16 millimeters wide, more than half an inch across. “She could fit her whole tongue in there,” says Scott, the pediatric surgeon. After she wore the NAM appliance for five months, Nayelli’s cleft was just four millimeters wide, less than the diameter of a pencil-top eraser. Narrowing the divide that

much “makes a huge difference in reconstruction down the road,” says Scott, who repaired Nayelli’s lip when she was 5 months old. “[Drs. Kassam and Chiang] were able to stretch her lip a little bit and mold her nose so that the surgery that I did was technically easier and had, I think, a better outcome than it would have without the NAM,” he adds.

Nayelli had her palate repair surgery on January 31, and celebrated her first birthday in the hospital four days later. A tiny rock star, she had well-wishers from her cleft team visiting all day. Hospital staff decorated her room and brought presents, balloons and cake.

A month later, the little girl with big blue eyes like her mom’s is as beguiling and flirtatious as any 1-year-old. On this bright Sunday in March, the Vieira family—Carol, Garrison and Nayelli, plus big brother Micah, 9, and sister Alyssa, 2, and the family dog, Tao—walk the beach near their island home. The wind is nippy, but the warmth of the sun hints at the season to come. Clad in fleece, Nayelli takes a bottle from her mom as the two perch atop an overturned rowboat. The sisters take turns riding on their parents’ shoulders, while Micah, dreaming of his upcoming baseball season, snaps a ball into his glove. “We have a really happy

family,” he says, mostly to himself.

Side-by-side in a double stroller, the Vieira sisters look, well, like sisters. Only the faint scars on Nayelli’s upper lip indicate what she has been through to get to this glorious spring day. Her nose is not quite symmetrical and will require more surgery once she finishes growing, likely well into her teens. “These kids typically require procedures even when they are not kids anymore,” says Arnold Lee, the surgeon. “It’s a lifelong process, really. We do expect to be working with patients and their families for a long time.”

In many of these kids, the growth of the upper jaw lags behind that of the rest of the face, resulting in a pronounced underbite that the surgeons will have to correct. Most children born with cleft palate eventually need braces. No one can predict what Nayelli may need down the road. “It’s a moving target,” says Scott, the other surgeon. “We care very much about how these children look, but in the end, we care most about how they function.”

Nayelli’s baby teeth are just beginning to come in, and the Tufts dentists are monitoring that milestone closely. In children with cleft palate, the teeth can be too small, or conical, or just the wrong shape. That doesn’t matter so much with baby teeth, though, so for now, the goal is to prevent decay. “She’s already had a lot of surgery,” says Chiang. “We want to take care of those teeth so she doesn’t get cavities and wind up in the operator.”

It’s been more than six months since Nayelli completed her NAM treatment, and the little girl no longer recognizes Chiang. It is bittersweet for the pediatric dentist, who admits she has grown attached to her first NAM patient. After Nayelli’s palate repair surgery, Chiang was among the birthday visitors in her hospital room. She cried when she saw how much Nayelli had grown, how different she looked after her operation. Though they don’t see each other regularly anymore, Chiang says she can’t forget the little girl and her own role “in the early stages of her lifetime.” **TDM**



NAVY DENTIST-IN-TRAINING OPENS DOORS TO ORAL HEALTH CARE FOR HOMELESS VETERANS

INGA KEITHLY'S GRANDFATHER COMMANDED AN AIRCRAFT CARRIER IN THE Second World War. Her dad flew a Douglas A-4 Skyhawk in Vietnam. Her twin sister, a physician in the Navy, just completed a commission in Guam. And Keithly, D12, whose dental education is being financed by the military's Health Professions Scholarship Program (HPSP), will serve as a Navy dentist after she graduates in May. So when she was awarded a Schweitzer Fellowship, which recruits graduate students in the health sciences to fulfill unmet community health needs, Keithly's mission was clear.

"I knew that my heart was with the veterans," she says. "I wanted to use the skills I'm acquiring in dental school and apply them directly to the services I'm going to be providing once I graduate."

For most of this year, Keithly, the president of her class, has been coordinating a group of her peers to provide free oral health screenings at the New England Center for Homeless Veterans in Boston. If the students see anything that warrants attention, from cavities to suspicious lesions, they refer the veterans to the clinics at Tufts Dental School or Boston Health Care for the Homeless (BHCH) for treatment.

BY JACQUELINE MITCHELL PORTRAITS BY ALONSO NICHOLS

LIVES *of* SERVICE



Armando Rivera, a
National Guard veteran
from New York.

Victor Andrews, a
U.S. Army veteran from
Waltham, Mass.



“We have a standing policy that if someone is in pain, we see them that day,” says Alan Filzer, director of the dental department at BHCH, where dentists handle more than 6,000 patient visits a year. Keithly shadowed Filzer in his clinics before launching her screening program to get an understanding of working with a homeless population. Oral cancer screenings are of particular importance: Many homeless veterans smoke and use alcohol, behaviors that are linked to oral cancer.

Eleven veterans came to the Tufts dental students’ first screening session in early November. Then on Veterans Day, Keithly arranged an all-day event, when students saw 30 vets. Keithly says her classmates’ participation was inspiring. Twenty-two of her peers volunteered to help out, giving up a rare day off to aid those who served their country. Hamasat Gheddaf Dam, an assistant professor of prosthodontics and operative dentistry, and Charles Rankin, D79, DG86, D08P, DG11P, professor of endodontics, served as faculty advisors.

“For the next generation to show some appreciation for what they did for their country, well, I think that was really important to all those vets who came to see us,” says Rankin, who himself attended Tufts as an HPSP student and retired from the Air Force as a lieutenant colonel before joining the faculty.

AN OCEAN OF NEED

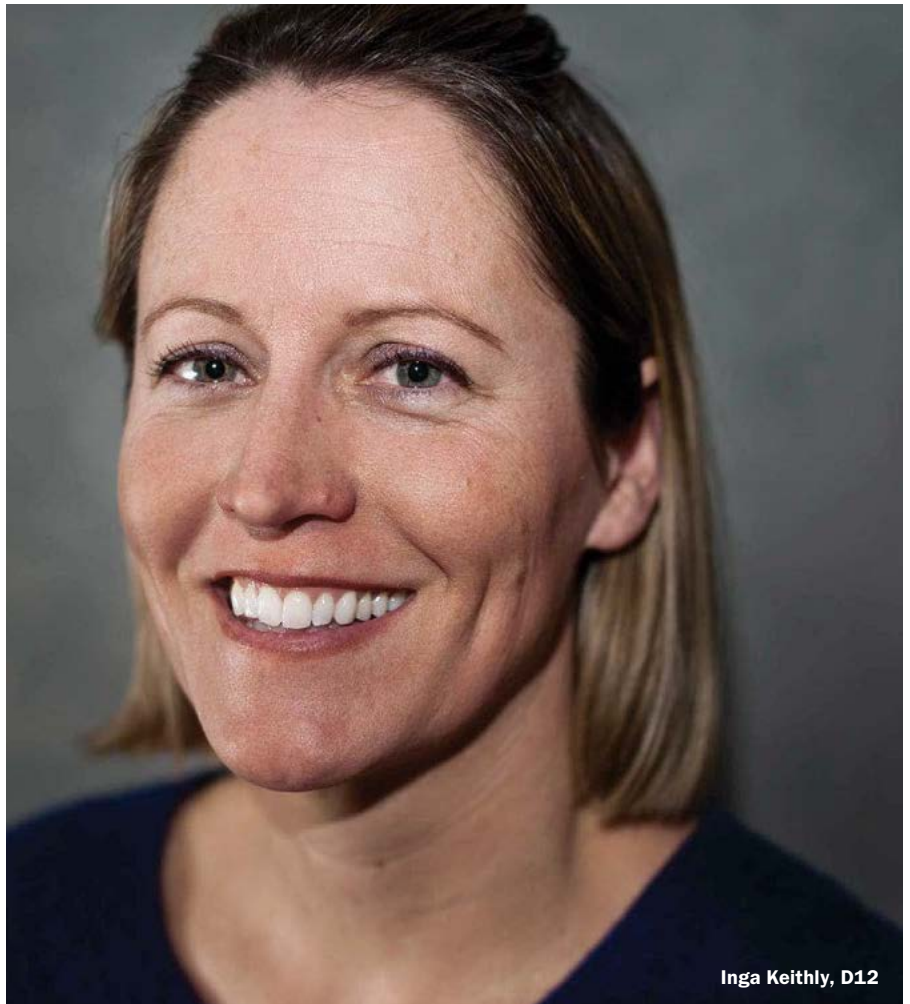
Though homeless veterans are a difficult group of people to count, the U.S. Department of Veterans Affairs reported more than 67,000 homeless veterans nationwide during a one-night census in January 2011. Some advocacy groups cite much greater numbers—as many as 250,000 veterans experiencing homelessness over the course of a year.

Whatever the figure, veterans make up a sizable share of the nation’s homeless population. While veterans constitute 8 percent of the general population, they account for about 14 percent of homeless men. Male veterans are twice as likely as their non-military counterparts to end up homeless, and women who have served their country are three times as likely, according to the National Center on Homelessness Among

Veterans, a division of Veterans Affairs. Many struggle with substance abuse or mental illness. Poverty, race and ethnicity are also factors, with African Americans and Hispanics making up more than half of the homeless veteran population despite accounting for less than a third of all Americans, according to the National Coalition for Homeless Veterans.

“When I look specifically at homeless veterans, I see people who have committed themselves to being on the front line for the freedom of our country,” says Keithly. “And now they’re back here, not even being taken care of.”

Opened in 1990 as the country’s first veterans-only shelter, the New England Center for Homeless Veterans houses and



Inga Keithly, D12

“I SEE PEOPLE WHO HAVE COMMITTED THEMSELVES TO BEING ON THE FRONT LINE FOR THE FREEDOM OF OUR COUNTRY. AND NOW THEY’RE BACK HERE, NOT EVEN BEING TAKEN CARE OF.”

—INGA KEITHLY, D12

provides meals each night for about 250 veterans—overwhelmingly men, though it has 16 beds for women. Another 70 or so visit during the day for counseling, vocational training and other services. The center has two well-equipped dental operatories, X-ray machinery and more.

During the screenings, the dental students work with their faculty advisors to diagnose oral cancer and gain confidence in their clinical skills. “But perhaps more importantly, they realize that anyone can be in this situation,” Filzer says. “Our patients are folks who’ve fallen on hard times.”

On the Tuesday night before what would

prove to be a disappointing Super Bowl, talk of the New England Patriots consumes the dinnertime conversation at the center. A dozen Tufts dental students, armed with goody bags filled with toothbrushes, paste and floss, move among the diners, inviting them to an oral health screening after the meal. When the veterans learn that Ian Kaemmer, D13, is an HPSP student who will serve in the Navy, they are eager to share their own stories.

“I definitely enjoyed the instant connection I had with the retired servicemen. It was a good icebreaker,” says Kaemmer. “We just wanted to develop a rapport and make

sure they felt at ease with us.”

After dinner, the veterans begin to fill the waiting room of the dental clinic on the fourth floor. In one operatory, Katie Paret and Rachel McKee, both D13, examine Glenn, an imposing man in a camouflage T-shirt and desert-colored boots. McKee calls out the condition of each tooth to Paret, who records it in Glenn’s chart. Alan Wong, D15, who has not seen patients in the clinic yet, watches his colleagues take the patient’s history and conduct the exam.

McKee recommends additional care for Glenn, who needs a partial lower denture and some fillings. “We want to restore some function so you can chew, and we want to try and keep the teeth you have,” she says, handing him paperwork to bring to his next appointment. Later, McKee notes that her work at the shelter reinforces why she’s training to be a dentist.

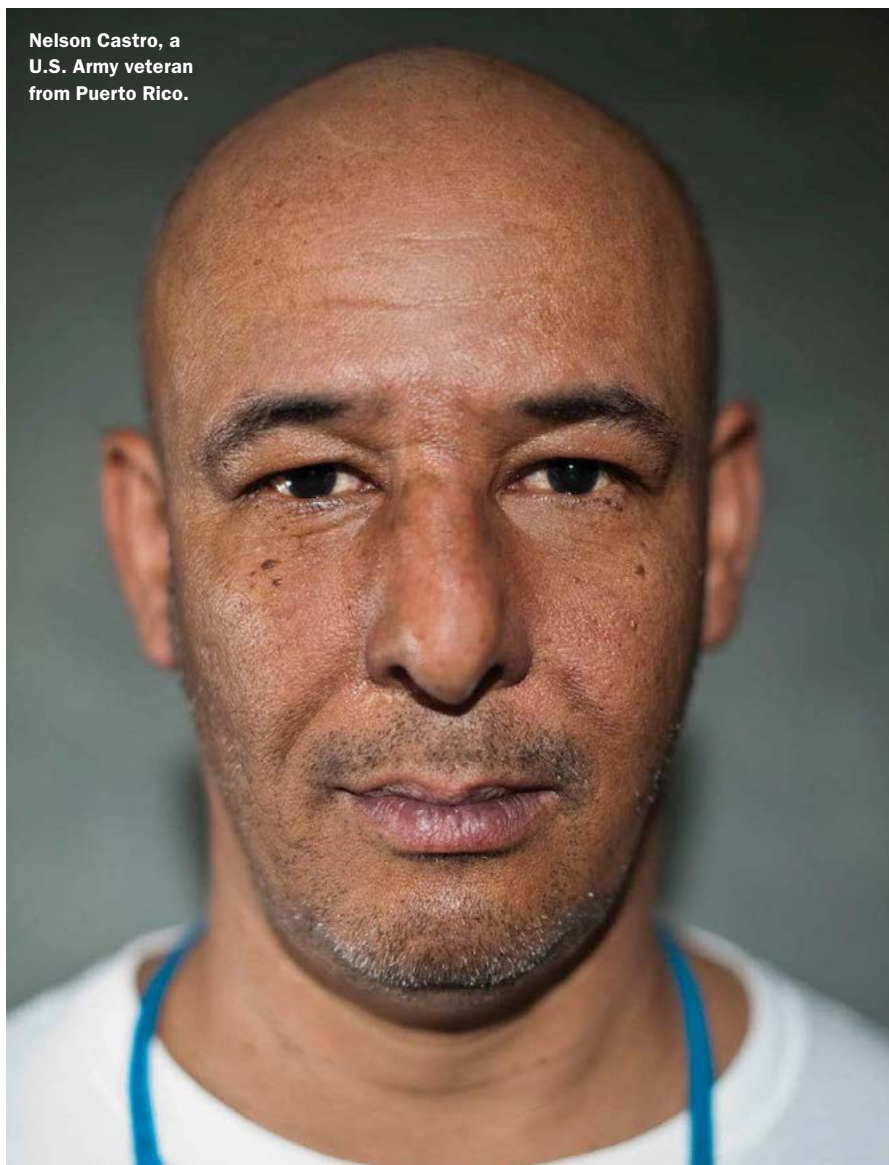
Before Glenn leaves, Kathleen Coyne, J66, D76, an assistant clinical professor of general dentistry, double-checks the students’ work. A member of a military family herself, Coyne is happy to spend her evening with the veterans. “These guys have given a lot,” she says. “This isn’t much for us to give in return.”

By the end of the evening, the Tufts students have seen eight patients. It has been a productive session, but Keithly wants to do more: “I’d like to be able to do the cleanings and take X-rays so they can leave with something substantial.” It’s something she has been working toward all year, even as graduation day draws closer. Coyne has a hunch Keithly just may pull it off.

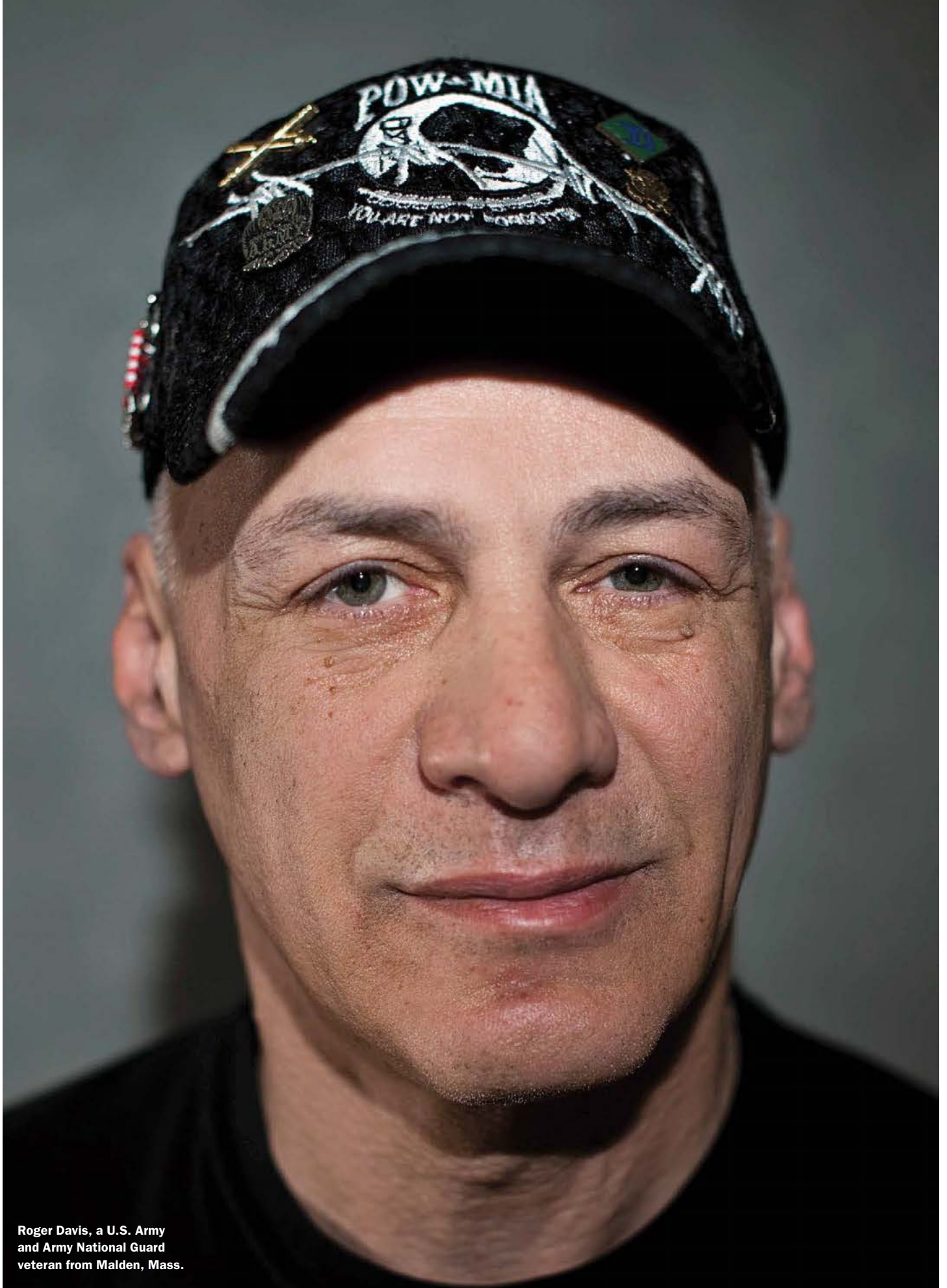
“I see potential [for an ongoing program],” says Coyne. “There is tremendous need, and Inga doesn’t take no for an answer.”

Keithly is optimistic that another dental student, maybe another Schweitzer fellow or HPSP student, will continue the program after she graduates in May. “This isn’t just something we’re doing one time,” she says. “We’re taking the skills that we’re learning at Tufts Dental and applying them to the community.” **TDM**

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



Nelson Castro, a U.S. Army veteran from Puerto Rico.



Roger Davis, a U.S. Army and Army National Guard veteran from Malden, Mass.

By the Book

**A force of nature in the clinic and a ‘shining star’
in the classroom for four-plus decades, Esther Wilkins
receives national dental education award**

BY JULIE FLAHERTY

PHOTOGRAPH BY YOON BYUN

WHENEVER CLINICAL PROFESSOR EMERITUS ESTHER WILKINS, D49, DG66, conducts a continuing education course—she’s done more than 800 to date—students inevitably crowd around her, clutching their textbooks, hoping to snag an autograph or snap a photo with her. She complies, of course, usually with a wide smile. That’s just what rock stars do.

It’s not only that Wilkins, 95, wrote the first comprehensive textbook on dental hygiene, an enduring manual now in its 11th edition. Or that she has a dental instrument—the Wilkins/Tufts Explorer—named after her. It is her enthusiasm for her work and her drive to educate thoroughly as many people as she can about the power of prevention that has made her a celebrity, “a shining star in dental and allied dental education,” as Richard W. Valachovic, president of the American Dental Education Association’s Gies Foundation, puts it. It was also, he said, what made her “an obvious choice” to receive the prestigious Gies Award for Achievement by a Dental Educator this year, presented on March 19, during the ADEA annual meeting.

Spreading the word on preventive treatment has meant educating not only dentists, as she has done at Tufts University School of Dental Medicine for 45 years, but dental hygienists. Wilkins practiced as a hygienist for six years before enrolling in dental school, and has continued to be a cheerleader for the profession.

“I know a lot of hygienists who have gone to dental school, and they don’t ever look back,” says Linda Boyd, N98, dean of the Forsyth School of Dental Hygiene in Boston. “She is unique in that way. Her heart has always been in hygiene.”



THE WOMAN FOR THE JOB

Wilkins wears her age well. She uses a cane, a consequence of a broken leg five years ago, but her posture is enviable, and she is proud of her twice-weekly workouts with her personal trainer. When she sat down recently to talk about her career, and how she enrolled in dental school when fewer than 2 percent of practicing dentists were women and soon after wrote a groundbreaking textbook, she said she didn't even realize she was being a trailblazer.

"I never had a feeling of that," she says, looking thoughtfully through her purple-rimmed glasses. "People use that word, or 'pioneer.' I didn't really feel it. I was just there to do it, get it done and work hard."

Wilkins was born in 1916 in Chelmsford, Mass., and grew up in nearby Tyngsboro. Her older sister, Ruthie, was her first mentor and model of what a teacher could be. When Ruthie saw that her little sister was struggling in French, she took it upon herself to tutor her every night, helping her get a C in the class.

So when Ruthie told Esther it was time to figure out what she was going to study at college, she listened up. They decided she would be a nurse, even though Esther knew little about the profession. She enrolled in the nursing program at Simmons College, but later switched to a general science major. With no money to live in the dormitory, she would take the five-cent bus to North Station, and the 5:14 train back to Tyngsboro every night.

In her senior year, one of her professors lectured on public health careers. Dental hygienist was one of them. She had never met a dental hygienist before, but something about it appealed to her. That very day, Wilkins walked to the Forsyth School, a beautiful marble building with big glass front doors. On her second visit, she went into the large, bright dental clinic, equipped with child-sized dental chairs. She saw the teachers in purple-banded caps and the students all in white dresses, shoes and hose. She was smitten.

After receiving her certificate from Forsyth in 1939, Wilkins took a position with Frank Willis, D13, who had a practice in Manchester-by-the-Sea, Mass. "He was very, very conscientious," she says. "I learned a lot about good, honest preventive dentistry."

Four mornings a week during the school year, she and Willis would walk to the local middle school and provide dental care for all the children in a two-chair clinic in the school's attic. She began to appreciate the impact preventive dentistry could have on lifelong oral health. "The students went to high school with all their teeth," she says. "It was just a beautiful concept."

Wilkins enjoyed the seaside town, and didn't even mind when, on the way to the grocery store, she would pass a patient across the street who would call out to her, "Esther! Is my appointment on Monday at 1 or 2?"

"I didn't really want to leave," she says. "But somehow or other, I had an ambition to do more."

She applied to and was accepted at Tufts Dental School, but Dean Basil Bibby, D39, encouraged her to defer a year, when at least one other woman would be enrolled. She ended up being one of three women who started with the class of 1949.

Meanwhile, Willis, who had "put up a big fuss" when Wilkins

told him she was leaving, lamented to her that he couldn't find a hygienist to take her place. So she practiced there during school vacations whenever she could. After she graduated from Tufts, he hired a new dental hygienist within a matter of weeks. It was then that she realized he had been giving her the opportunity to earn money for her college expenses, which she very much appreciated.

As much as she liked Manchester, she wasn't drawn to private practice. "Not that I didn't have idealism about how it should be," she says. "Dr. Willis gave me a wide background on how you can have a little practice in a little town and do a lot for a lot of people." Instead, she took an internship in children's dentistry at the Eastman Dental Dispensary in Rochester, N.Y. Soon she was asked to take on a whole different mission: to establish, from the ground up, a dental hygiene program at the University of Washington in Seattle.

She started from scratch, doing everything from ordering instruments to recruiting clinical faculty. The dental hygiene textbooks that existed were painfully out-of-date. "Dr. Fones' book itself, that was still available," she says, referring to Alfred Fones, who is credited with training the first dental hygienist—his cousin—to assist him in his practice in 1906. "There was one chapter on instrumentation, one on anatomy—chapters on things you should have a whole course on," Wilkins says. "No mention of X-ray, because X-ray hadn't come along in dentistry."

THE BOOK IS BORN

So she began writing up her own text on specialty subjects in dental hygiene, which she distributed to students as mimeographed handouts collected in a loose-leaf binder. "The first two years, I taught most of the courses myself. When I taught the X-ray course, I used the same program that my teacher at Tufts had used. I had them buy the same textbook. I gave the same contents of lectures that he did. So those X-ray classes were definitely what were being taught in dentistry back at Tufts."

Wilkins admits she has always been a rigid teacher, particularly in the clinic. "They used to say I could find calculus that wasn't there. One of my strong beliefs is that we must get all of the calculus off in order to control the inflammation in the gingival tissue. If it's not possible in one appointment, then you divide the mouth into two or four appointments. You don't jump around. You have a very systematic plan."

By 1959, her mimeographed lessons had piled up. One day, a textbook salesman making his usual rounds spied the thick stack on her desk. He asked to take a look. "We should publish this," he said. "Can you have it ready for fall?"

"So I said yes," Wilkins recalls, "not knowing [what] I was forecasting for the rest of my life."

All that summer, she and a colleague worked on the book, rushing into the main clinic (the only air-conditioned area in the dental school) as soon as the clinic patients were gone. They would proof-read until the school closed. The first edition of *Clinical Practice of the Dental Hygienist* was published that fall.

Her standards for each subsequent edition have been just as exacting. The 11th edition, which was released in January by Lippincott

“You often decide to do things based on how enthusiastic your instructors are. And I think that’s what happened to me.”

—SHELDON DUCHIN, D74

Williams & Wilkins, clocks in at 1,264 pages, plus CD-ROM. But even as the first copy arrived on her desk, she cast a critical eye, right down to the cover, which looked to her like a dark blue. She wrote back to the publisher: “We wanted purple. Is it too late?”

The cover’s hue is more than trivial. Among hygienists, it is a secret handshake of sorts. “Every edition is a different color, you see,” Wilkins explains. “When I ask a dental hygienist what year she graduated, she’ll say, ‘Yellow book.’ So I know immediately it had to be between ’71 and ’76.”

From the first edition, the book would become a constant presence in her life, even as her original coauthor moved on to other projects. After 12 years at the University of Washington, Wilkins returned to Tufts for postgraduate study in periodontics. An old Tufts classmate, James Gallagher, D49, who had become a full-time assistant professor in the Department of Complete Dentures, had also started studying for his degree in prosthodontics. They began spending time together. Not long before she was set to graduate, he proposed.

“I said, ‘Oh no, you don’t want to marry me,’” she recalls. “‘You don’t understand about this *book*. It’s a full-time job.’” By that time, she was working on the third edition. “He said, ‘Well, I guess I could put up with it.’”

They married in 1966, and she began teaching part-time in periodontics. He passed away in August 1988.

‘A TRUE EDUCATOR’

Although Wilkins has won many awards, the Gies Award is particularly meaningful. Being a teacher and mentor is something close to her heart.

“She is just a true educator,” says Boyd, the Forsyth School dean, who sees Wilkins when she visits the school for weekly lunches with small groups of dental hygiene students, who ply her with questions. “When she is with the students, her eyes light up,” Boyd says. “She talks with the rest of us, but it is not with the same gleam in her eye.”

Sheldon Duchin, D74, an assistant professor of periodontology at Tufts, says Wilkins was his favorite instructor when he was a student. “You had to spend a long time with her doing your periodontal diagnosis. If you did scaling with her, she would detect every small particle of calculus on a patient’s tooth. And she would go through brushing and flossing with a patient endlessly, until the gums were in perfect condition.” While this might not appeal to every student, Duchin found it a challenge.

Without specifically steering him toward a specialty, Wilkins was a big part of why Duchin went into periodontology. “You often decide to do things based on how enthusiastic your instructors are, the excellence they exhibit,” he says. “And I think that’s what happened to me. Somehow the message went across that periodontics was the way to save patients’ teeth, that this was a very important part of dentistry. And that’s what I decided I wanted to do.” When he was accepted to Harvard’s graduate program in periodontology, the first person he told, after his parents, was Wilkins.

Wilkins’ students at Tufts knew little of her celebrity in the dental hygiene world. Duchin happened to come upon *Clinical Practice of the Dental Hygienist*, with Wilkins’ name on the cover, in the library. When he asked her about it, she said, “Yeah, I actually wrote the dental hygiene bible.” His helpful instructor, he discovered, was “really quite a famous person.”

Wilkins’ view of education can be summed up in four words: “the more, the better.” When Patricia Cohen was considering taking one college course a semester toward a bachelor’s degree, while being a full-time mom and a part-time dental hygienist, Wilkins said, “Maybe you can take *two* courses.” So she did.

“I had busy days and lots on my to-do list,” Cohen recalls, “but somehow I managed because she encouraged me.”

After graduating from Northeastern University with honors, Cohen thought she could rest on her laurels, but Wilkins was quick to say, “You must continue with a master’s degree.” Once Cohen earned a master’s in health communication from Tufts School of Medicine in 1998, Wilkins said, “And now, how about a law degree?” Cohen, who is now an assistant clinical professor of periodontology at Tufts, has yet to tackle that.

“This prodding and encouragement seems to be a trend with Esther,” Cohen says. “She encourages lifelong learning and is always learning new things herself.” Cohen, who has worked with Wilkins on continuing education courses for dental hygienists and workshops for second-year dental students, finds her a powerful role model.

“Her usual approach to new ideas and projects is ‘Why not?’ And that’s not a question. It’s her way of saying, ‘Let’s do it, and let’s do it now!’” **TDM**

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

New Thinking About Children

BY MICHAEL BLANDING Presidential Inauguration week, in October 2011, was marked by brilliant displays of Tufts talent, oratory and regalia. But given the new president's stature as a scientist, it seemed fitting that there should also be a quieter, more scholarly event: a meeting of minds on the subject of child development. Anthony Monaco, Tufts' thirteenth president, wanted to prove the value of having different disciplines train their sights on the same topic—an approach that is likely to become more and more common in these parts. Accordingly, Peggy Newell, provost and senior vice president *ad interim*, organized the first-ever inaugural symposium, Advances in Child Development. The speakers included Monaco, himself a specialist in the genetics of developmental disorders, and one of his U.K. mentors, Sir Michael Rutter. They were joined by half a dozen top scientists from different schools of Tufts. Topics ran the gamut from dyslexia to tooth decay. Herewith, a digest of the talks, the full titles of which are given after each speaker's name.

WHEN GENES GO AWRY

ANTHONY P. MONACO, PRESIDENT, TUFTS UNIVERSITY; PROFESSOR OF BIOLOGY, SCHOOL OF ARTS AND SCIENCES; PROFESSOR OF NEUROSCIENCE, SCHOOL OF MEDICINE ("GENETICS OF NEURODEVELOPMENTAL DISORDERS")

It's long been known that developmental disorders run in families, but pinpointing genetic culprits is no small task. Monaco and his laboratory have taken several quite different approaches. To track down the genes associated with autism, for example, they homed in on chromosome abnormalities that occur when cells divide, causing breaks in genes or changes in their number, for example by deleting a copy. Scrutinizing those chromosome abnormalities turned up single genes, or sometimes a group of genes, that influence susceptibility to autism in 15 to 20 percent of cases.

In another case, involving a family with a rare speech and language disorder, Monaco and his colleagues narrowed the cause down to a single gene, *FOXP2*. An abnormality in that gene could signal whether a member of the family would inherit the language problem, even before any symptoms appeared. By studying the *FOXP2* gene in songbirds, mice and monkeys, the researchers gained insights into the gene's role in vocalizations throughout evolution and how language developed in humans. "It's allowed us at least one entry



point to start to dissect the biological pathways inside the brain involved in speech and language," Monaco said.

Dyslexia is another neurodevelopmental disorder with a genetic component. Monaco's team managed to identify one of four genes apparently associated with the disorder. Studies show that the gene affects how neurons form in the fetal brain. It

"might be involved in the correct adherence and migration of neurons," Monaco said.

With all of these disorders, early detection can be key to improving outcomes. The contributions Monaco and other genetics researchers are making to the field eventually could lead to screening techniques that would improve diagnosis and give doctors better insight into potential treatments.



NATURE AND NURTURE

SIR MICHAEL RUTTER, PROFESSOR OF DEVELOPMENTAL PSYCHOPATHOLOGY, LONDON INSTITUTE OF PSYCHIATRY (“KEY PARADIGM SHIFTS IN DEVELOPMENTAL SCIENCES”)

It’s an old debate: heredity versus environment. Which of the two exerts the greater influence on the individual has proved to be even more complicated than once believed, according to Rutter. While psychiatrists have fixated on either biological or environmental causes of mental disorders, most such conditions now appear to stem from a complex interplay between the two.

Many of the newer findings have come from “natural experiments,” studies that compare naturally occurring groups so as to isolate genetic effects—the children of twins, for example, or children born of artificial insemination versus children of donated eggs. Previously, some clinical studies suggested that ADHD or antisocial behavior may be caused by a mother’s smoking during pregnancy—an environmental factor, in other words. But these newer studies have shown that children with certain genetic profiles suffer no such ill effects from their mothers’ smoking, although there is an effect on

birthweight. In those cases, genes trump environment.

Sometimes, the opposite seems to be true. Childhood depression was long thought to be genetically determined, but new studies show that environmental factors are twice as important as genetic predisposition in determining whether a child is diagnosed with the disease. In some cases, genes and environment can have a multiplier effect, exponentially increasing the chances of developing certain disorders. In still other cases, environmental forces can be canceled out by genetics. A variant of one particular gene, for instance, affects the vulnerability of children experiencing maltreatment, helping them develop resiliency.

All of these findings have dramatic implications for treatment—allowing better targeting of certain disorders. But first, Rutter said, doctors must abandon their old notions of nature *or* nurture in favor of a more individualized approach that sees the two as inseparable.

REWIRING DYSLEXIA

MARYANNE WOLF, THE JOHN DIBIAGGIO PROFESSOR OF CITIZENSHIP AND PUBLIC SERVICE, DIRECTOR OF THE CENTER FOR READING AND LANGUAGE RESEARCH AND A PROFESSOR IN THE ELIOT-PEARSON DEPARTMENT OF CHILD DEVELOPMENT, TUFTS UNIVERSITY (“THE EVOLVING READING BRAIN IN A DIGITAL CULTURE”)

To most of us, reading seems such a basic brain function that we hardly stop to think about how we learned to do it. In fact, said Wolf, human beings aren’t born with any inherent ability to read text. Rather, we all jury-rig unrelated parts of our brain—those in charge of visual recognition of shapes, phonological recognition of sounds and higher cognitive functions for comprehension and syntax—into a complex circuitry that decodes the sentence you are reading now in a matter of milliseconds. “Each new reader,” Wolf said, “must create an entire reading circuit”—usually

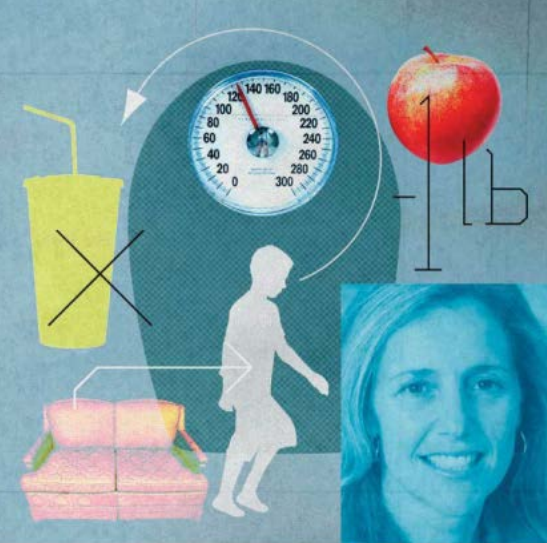
between ages 5 and 7. “It took us 2,000 years as a species to get to an alphabet,” she said, referring to the evolution from symbolic writing, such as hieroglyphics or cuneiform to the first real phonetic writing system, developed by the Greeks around 800 B.C. But a child must go through a similar cognitive evolution in just 2,000 days.

It’s no wonder that this complicated process sometimes goes haywire, causing reading disorders. Brain scans have shown that many dyslexic children fail to activate areas in the left hemisphere for phonological skills that help in sounding out letters; instead, they use areas in the right hemisphere keyed to visualization. Wolf and her colleagues have devised ways to rewire those faulty pathways. Putting children through a special curriculum that breaks down each stage of the reading process into specific techniques, mimicking the sequence of activities in the brain, the researchers have seen marked improvement in both word recognition and reading comprehension.

Her latest studies look at how the



daily bombardment of technology is affecting children’s reading development. “Is that going to be changing the degree to which they possess the deep reading skills?” she asked. In other words, how will all of the circuitry we’ve created for computers affect the circuitry we’ve created in our brains?



GROWING UP, NOT OUT

CHRISTINA D. ECONOMOS, N96,

DIRECTOR, CHILDHOOD OBESITY180; NEW BALANCE CHAIR IN CHILDHOOD NUTRITION, FRIEDMAN SCHOOL OF NUTRITION SCIENCE AND POLICY; ASSISTANT PROFESSOR OF FAMILY MEDICINE AND COMMUNITY HEALTH, SCHOOL OF MEDICINE (“TACKLING A CRISIS: A SYSTEMS APPROACH TO OBESITY PREVENTION”)

Everybody talks about childhood obesity. Economos has dedicated herself to actually doing something about it. A decade ago, she helped put together a community research study in Tufts’ home base of Somerville, Mass. Shape Up Somerville since has become a national model. Aimed at getting children to eat healthier foods and increase physical activity, the program used a “systems” approach, tackling all sides of the obesity issue at once. Parents plotted walking routes to schools, the schools switched to healthier menus and doctors were trained in more effective screening for obesity. Even local restaurants got in on the act, offering smaller portions.

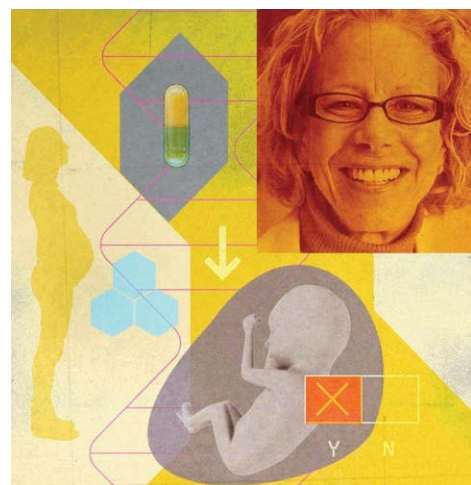
After the first year, the study showed a drop in obesity that translated into about a pound per child per year compared with two neighboring towns—a significant amount over childhood. “It’s exactly what we hoped for,” said Economos. When Michelle Obama launched a national campaign to combat childhood obesity, she singled out Shape Up Somerville for praise. Economos is now developing a national “playbook” for tackling the problem, recognizing that just as there is no one cause for the obesity epidemic, so there is no one-size-fits-all solution.

TREAT THE FETUS

DIANA BIANCHI, EXECUTIVE DIRECTOR, MOTHER INFANT RESEARCH INSTITUTE, TUFTS MEDICAL CENTER; NATALIE V. ZUCKER, PROFESSOR OF PEDIATRICS, OBSTETRICS AND GYNECOLOGY, SCHOOL OF MEDICINE; VICE CHAIR FOR RESEARCH AND ACADEMIC AFFAIRS, DEPARTMENT OF PEDIATRICS, FLOATING HOSPITAL FOR CHILDREN (“TREATMENT OF DEVELOPMENTAL DISORDERS USING A PRENATAL GENE EXPRESSION APPROACH”)

The joy of a new pregnancy is often overshadowed by The Test—routine prenatal screening for Down syndrome. If the result is positive, the parents must choose whether to continue or terminate the pregnancy. Bianchi is working on a third option: treating the condition in the womb. Her lab has been looking for drugs that, given to the pregnant woman, might counteract some of the biochemical abnormalities seen in Down fetuses. Examining RNA that floats in the amniotic fluid, Bianchi and her team found that genes in such fetuses are affected by something called oxidative stress—a byproduct of oxygen metabolism that creates destructive chemicals. The researchers plugged the gene expression profiles of the affected fetuses into a database of all FDA-approved drugs, searching for any that might stop the oxidative effects.

Sure enough, several drugs popped up. In early results, one of the drugs greatly reduced oxidative stress in cells from Down fetuses in the test tube. Now Bianchi’s team is experimenting with mice. “To the best of our knowledge, this is the first time anyone has tried to use a gene expression rationale for treating a genetic condition in utero,” Bianchi said. If it works, the same techniques could be used to treat other birth defects, perhaps opening up a whole new field: prenatal pediatrics.



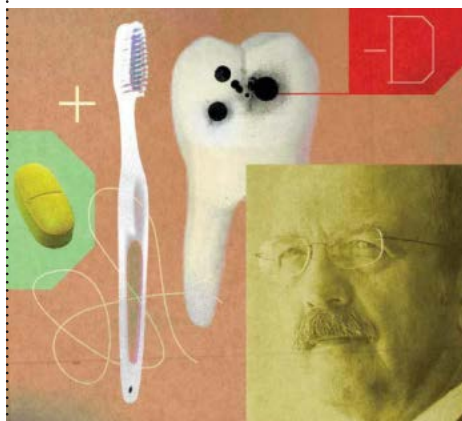
VITAMINS FOR TEETH

HUW F. THOMAS, DEAN AND PROFESSOR OF PEDIATRIC DENTISTRY, TUFTS UNIVERSITY SCHOOL OF DENTAL MEDICINE (“EARLY CHILDHOOD CARIES: THE ROLE OF NUTRITION”)

The most common disease of childhood isn’t asthma or diabetes. It’s early childhood caries, more commonly

known as tooth decay. By age 5, some 25 percent of affluent children show some signs of the disease—caused by bacteria that turn sugar into acid, which breaks down the enamel on the teeth. Among poor children, however, the disease is epidemic, affecting 60 percent of them by age 5. Some children exhibit signs of decay before their first birthday. “This disease shows no age limitations,” said Thomas.

While many studies have examined the role of sugar or improper bottle feeding in causing cavities, Thomas has focused on a less intuitive cause, deficiency of vitamin D, a problem that particularly affects poor communities due to inadequate nutrition. Experimenting with mice that can’t metabolize vitamin D, Thomas has shown dramatic differences in their tooth enamel compared



LEARNING FROM ANIMALS

LISA FREEMAN, J86, V91, N96.

PROFESSOR OF CLINICAL SCIENCES, CUMMINGS SCHOOL OF VETERINARY MEDICINE, TUFTS (“CHILD DEVELOPMENT: LINKING HUMAN AND ANIMAL HEALTH”)

“You may be wondering why you have a veterinarian talking to you at a symposium on child development,” said Freeman. “It all boils down to the idea of One Health.” It’s the proposition that studying animals can yield insights into the treatment of human disorders, including developmental ones. The concept has been championed by Tufts and by Freeman in her research on animal nutrition.

One disease that affects both animals and humans is hypertrophic cardiomyopathy (HCM)—a heart condition that can cause sudden cardiac death in young athletes. Maine coon cats have a genetic mutation that renders them more susceptible to the disease, and Freeman has studied them intensively. An intriguing finding: some cats with the mutation get very sick and others not at all. Why? Possibly because of differences in nutrition, Freeman said.

to ordinary mice. Surprisingly, the teeth of mutant mice form their enamel coating faster than normal. The trouble is, the enamel is weak. In ordinary mouse enamel, there’s a strong crystalline structure—“a beautiful prism arrangement,” as Thomas called it (he displayed an electron microscope image of what looked like a wall made of neat rows of bricks). By contrast, the teeth of the mutant mice exhibited a “significant disruption of that crystal.” In preliminary tests, acid dissolved the D-starved enamel much faster than the normal enamel.

While the research doesn’t discount the importance of limiting sugar and good old brushing and flossing to control cavities, it does point to another dimension of tooth care that dentists should start to address.

In all sorts of animals, malnourishment during early development can interfere with important processes such as DNA repair and cell growth cycles. “Low birth weight in children can increase the risk for coronary heart disease and hypertension in later life,” Freeman said. The research on HCM could open up new treatment methods both for cats and for humans.

Sometimes pets play a therapeutic role for humans. People who want to shed pounds, for example, are more successful if they are also trying to help their tubby dog or cat lose weight. Pets can even help children learn to read. “Dogs are nonevaluative,



nonjudgmental listeners,” Freeman said. “So children who lack confidence or lack reading skills are very comfortable reading to dogs.” Freeman and her colleagues found that second-graders who read to dogs became better and more dedicated readers than those who read to other people. There is no word yet on how this affected the literacy of the dogs.

BUILDING SCHOLARS

CHRIS ROGERS, PROFESSOR OF MECHANICAL ENGINEERING AND DIRECTOR, CENTER FOR ENGINEERING EDUCATION AND OUTREACH, SCHOOL OF ENGINEERING, TUFTS (“KINDERGARTEN ENGINEERING: MOTIVATING CREATIVITY AND INNOVATION IN THE CLASSROOM”)

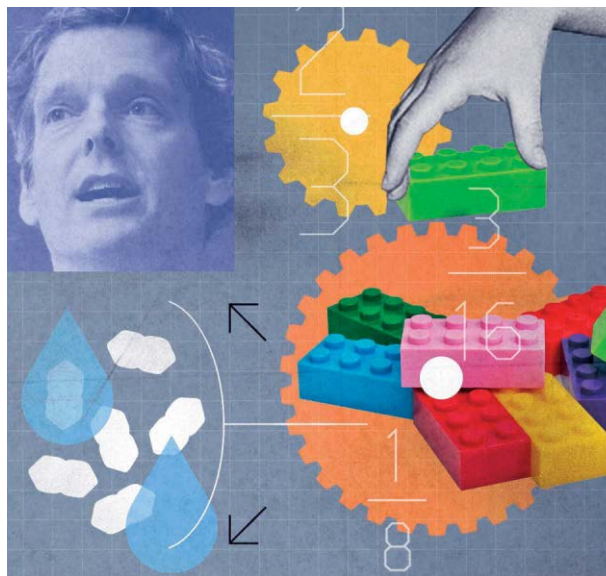
A local first-grade teacher gave her pupils Lego blocks, gears and a mechanical motor, and asked them to make a snowplow to push Styrofoam packing peanuts out of the way. Most of the kids aced the assignment. But then she made the peanuts heavier by soaking them in water. Now only a few kids, those who had used geared wheels for more power, succeeded. “All of a sudden,” Rogers recounted, “they were really interested in what gears were.”

That hands-on lesson is typical of the way Rogers and his outreach team teach mechanical and mathematical principles to young children. They set a goal, encourage as many routes to that goal as possible and then let the kids keep trying until they succeed.

When kids learn with their hands, they retain more. Children who learned fractions from a blackboard did just as well on a math test as those who learned fractions by programming a Lego robot car to travel different distances. But tested again six weeks later, the Lego kids remembered almost twice as much as the blackboard kids.

Such methods aren’t easy to integrate into a classroom geared to standardized tests,

so Rogers and the center have developed teaching tools, training programs and online communities to help teachers adopt the techniques. Ultimately, he’d be happy if standardized tests favored creative problem-solving. “If we can try and get as much variation in the solutions as possible, instead of one right answer,” he said, “then I think we’ve succeeded.”



Bad Bugs

Bates-Andrews speaker probes the interplay of diet, bacteria and childhood caries by Jacqueline Mitchell

MANY DISTINGUISHED SPEAKERS HAVE LECTURED AT TUFTS University, but Anne C.R. Tanner, a senior member of the molecular genetics department at the Forsyth Institute in Cambridge, Mass., may be the first to have a bacterium, *Tannerella forsythia*, named after her.

A dentist and oral microbiologist, Tanner studies the bacteria species that cause tooth decay and periodontitis. *Tannerella forsythia*, which is implicated in gum disease, was so named to recognize her contributions to periodontal research. She gave the keynote address on March 7 at this year's Bates-Andrews Day, the School of Dental Medicine's annual student research fair. The Forsyth Institute conducts research on oral health and related fields.

Tanner collaborated with researchers including Tufts' own Carole A. Palmer, G69, professor of public health and community service; Cheen Y. Loo, DI10, associate professor of pediatric dentistry; Nooruddin S. Pradhan, DG93, DG94, DI06, assistant professor of pediatric dentistry; and Sonia S. Arevalo Vasquez, D12, to tease out the subtle interactions among diet, bacteria and decay in children.

Among the team's findings was a previously unknown cavity-causing bacterium known as *Scardovia wiggsiae*. The team also identified almost 200 groups of microbes, including 45 that had not been found in the human mouth before.

The discovery of the new bugs helped to solve at least one enduring dental mystery: how folks who test negative for *Streptococcus mutans*, the bacterium most strongly associated with tooth decay, end up with cavities.

"It's not just more plaque in children with severe caries," said Tanner. "There are differences in the microbiota."

So how do we wind up with different bacterial ecosystems in our mouths? "It's an extremely controversial subject," said Tanner. "Nevertheless, there are examples in the literature—it is plausible that diet can change microbiota."

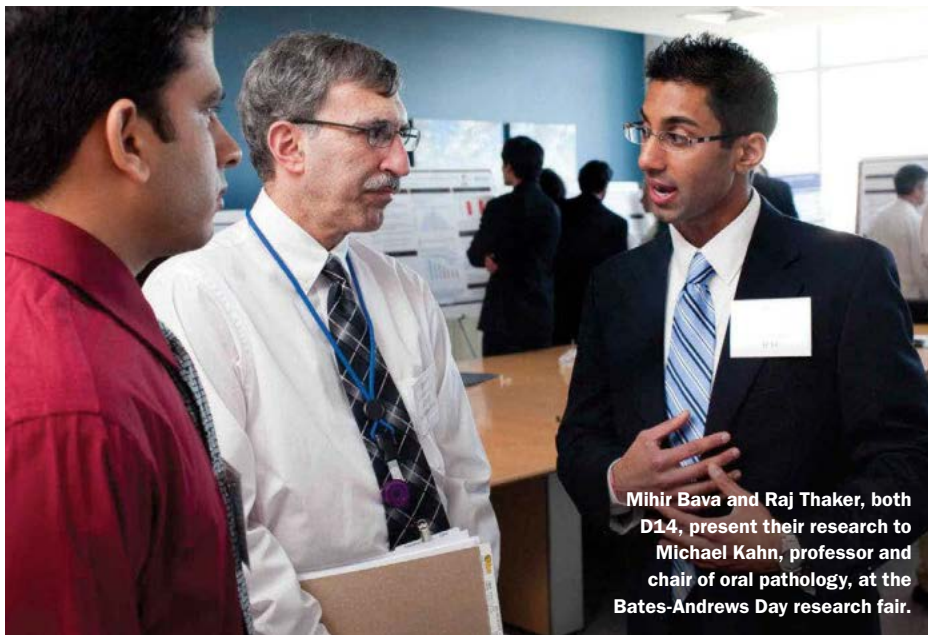
When Tanner and her colleagues analyzed the eating habits of children with severe decay and compared them with the diets of children with no cavities, it turned out that how often children eat may be even more important than what they eat on a daily basis. The children with rampant cavities ate far more frequently than the cavity-free children.

"There's a lifestyle component, and there seems to be a bacterial component," Tanner said. "I would suggest that if this were true, one might like to know which was which to devise the optimal therapy."

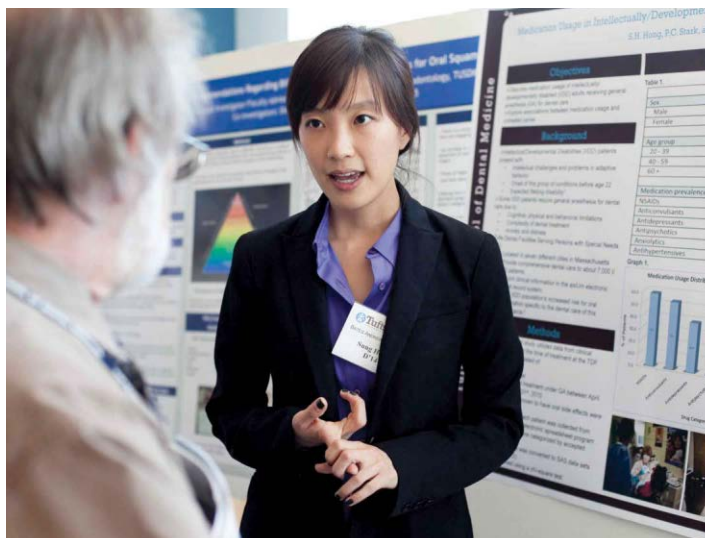
To that end, the scientists set out to determine which of the children with severe decay were likely to develop more cavities following treatment. Tanner said the researchers didn't find "any amazing differences that could predict which group [the children] went into."

But there was one startling difference between children who got more cavities and those who did not—the prevalence of *S. mutans* and other cavity-causing bacteria. "Maybe we changed the microbiota [in the course of treatment]," Tanner speculated, though the data were not statistically significant. "Treatment may need to be tailored to individual children," she noted.

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



Mihir Bava and Raj Thaker, both D14, present their research to Michael Kahn, professor and chair of oral pathology, at the Bates-Andrews Day research fair.



Far left, Anne C.R. Tanner, of the Forsyth Institute, delivered the Bates-Andrews keynote address; left, Sung "Olivia" Hong, D14, explains her work at the research fair.

2012 AWARD WINNERS

BEST POSTGRADUATE POSTER PRESENTATION

(cash prize donated by Jess Kane, David Tesini and Nancy Jo Soporowski): **David Ching**, "Efficacy of the Dental Vibe Injection System for Pediatric Patients"; faculty mentor: **Cheen Loo**

BEST SCIENTIFIC RESEARCH PRESENTATION BY A SENIOR, ANDREWS SOCIETY AWARD

(cash prize donated by Jess Kane, David Tesini and Nancy Jo Soporowski): **Eunice Lee**, "Effect of Chlorhexidine in Dentin Bond Using Total-etch and Self-etch Adhesives"; faculty mentor: **Gerard Kugel**

ADA/DENTSPLY STUDENT CLINICIAN AWARD FOR BEST OVERALL PREDOCTORAL TABLE CLINIC

(travel to present research at 2012 ADA annual session): **Ramesh Thondapu**, "Evaluation of Bacterial Susceptibility to Disinfectants at the Dental Clinic"; faculty mentors: **Addy Alt-Holland** and **Ronald Perry**

SECOND PLACE FOR PREDOCTORAL TABLE CLINIC

(cash prize donated by Jess Kane, David Tesini and Nancy Jo Soporowski and travel to present research at Greater New York Dental Meeting): **Courtney Michelson**, "Shear and Tensile Strength of Silk Coatings on Titanium Surfaces"; faculty mentors: **Gerard Kugel** and **David Kaplan**

THIRD PLACE FOR PREDOCTORAL TABLE CLINIC

(cash prize donated by Jess Kane, David Tesini and Nancy Jo Soporowski, and travel to present research at Greater New York Dental Meeting): **Arpan Desai** and **Victor Mai**, "Peptides Derived from Leptin Inhibit Prostate Cancer Signaling"; faculty mentor: **Paul Leavis**

RESEARCH COMMITTEE AWARD FOR BASIC SCIENCE RESEARCH

Alayna Corden, "Neutralizing Antibodies against AAV 2, 4, 5, 12, and BAAV in Sjögren's Patients: Implications for Gene Therapy"; mentor: **John Chiorini**, NIDCR

MASSACHUSETTS DENTAL SOCIETY AND ASDA PUBLIC HEALTH AWARD

(cash prize donated by the Massachusetts Dental Society): **Erica Stutius**, "Oral Health Considerations: Developmentally Disabled Adults Treated under General Anesthesia"; faculty mentor: **John Morgan**

OMICRON KAPPA UPSILON (OKU) HILDE TILLMAN AWARD

(cash prize donated by OKU): **Diego Camacho**, **James Koehler** and **Jessica Silva**, "Retrospective Evaluation of Implant Failure Predictors at Tufts University School of Dental Medicine"; faculty mentors: **Paul Levi** and **Eduardo Marcuschamer**

PROCTER & GAMBLE TRAVELING FELLOWSHIP AWARD

(travel award donated by Procter & Gamble): **Catherine DeFuria**, "Flexural Loading Strength of Provisional Restorative Material"; faculty mentor: **Gerard Kugel**

DR. CHAD ANDERSON FAMILY AWARD FOR INNOVATIVE METHODOLOGY AND RESEARCH DESIGN

(cash prize donated by Chad Anderson): **Nicolas Freda**, "Shear Bond Strength of Self-Adhesive Resin Cements (Lithium Dissilicate/Zirconia) to Dentin"; faculty mentor: **Masly Harsono**

MULTICULTURAL AWARD FOR THE ADVANCEMENT OF DENTAL RESEARCH

(travel award donated by Kistama Naidu): **Shruti Pore**, "E-Cadherin Loss Promotes Squamous Cell Carcinoma Development through Dab-2 Down-regulation"; faculty mentor: **Addy Alt-Holland**

ORAL HEALTH DISPARITIES AWARD

Chris Choi, "Adults with Intellectual/Developmental Disabilities: Medication Utilization and Untreated Caries"; faculty mentor: **John Morgan**

BATES STUDENT RESEARCH GROUP PEER-REVIEWED AWARD

Daniel Gonzalez and **Diego Camacho**, "Evidence-based Recommendations Regarding Bilingual Youth Prevention Programs for Oral Squamous Cell Carcinomas"; faculty mentor: **Aidee Herman**

onekneeland

In case you hadn't heard...



Hygienists Annie Le and Sahar Forghan with patient Joshua Nichols at the new TDF clinic at the Massachusetts Hospital School in Canton, Mass.

CARING FOR PATIENTS WITH SPECIAL NEEDS

More than 1,100 patients with special needs are receiving oral health care at a new clinic at the Massachusetts Hospital School in Canton, Mass., a shared initiative of the Tufts Dental Facilities (TDF) Serving Persons with Special Needs and the hospital school. The clinic, which opened in September 2011, is the new home of the TDF facility formerly located at the Fernald Developmental Center in Waltham, Mass.

The seven-chair clinic also serves as a training site for the Tufts General Practice Residency Program and for fourth-year students in the weeklong special-care rotation.

“The completion of this project marks a true victory for the developmentally disabled population,” said Darren Drag, D00, DG02, clinic operations director

for TDF. “It is the culmination of a two-year collaborative effort of Tufts School of Dental Medicine, the Commonwealth of Massachusetts and the Massachusetts Hospital School to maintain the dental services previously provided at Fernald.”

A federal Health Resources and Services Administration grant funded the construction of the clinic.

TDF patients continue to receive care from faculty and staff affiliated with the dental school. Pediatric dentist John Ficarelli, D73, D10P, DG12P, coordinates care for patients affiliated with the Massachusetts Hospital School.

The TDF program, a partnership with the Massachusetts Department of Public Health and Developmental Services, has a network of seven clinics around the state.

NEW D.M.D./M.P.H. PROGRAM

Between high school and college, Riaz Dini, D13, spent a year working to eradicate the parasitic disease river blindness in the west-central African nation of Cameroon. The project was part of a year of service sponsored by the Baha’ community.

“That experience started my interest in public health services and policy,” says Dini, who hopes to return to Africa to work in public health. To that end, he is among the first students to take advantage of the dental school’s new combined D.M.D./M.P.H. degree program, which was launched earlier this year.

The impetus behind the dual-degree program is to address the shortage of dentists who are board-certified in public health, says Wanda Wright, an assistant professor of public health and community service who directs the program.

“With the changing demographics of the [U.S.] population—the population is getting older, and there are higher percentages of minorities—there are a lot of oral health disparities that need to be addressed on a population-based level,” Wright says, and that’s precisely what public health dentistry seeks to do.

“I was considering that I’d get an M.P.H. at some point in my career, and when I found out that Tufts was going to introduce this dual-degree program, I thought it was a great opportunity,” says Dini.

The program allows students to earn a dental degree from the dental school and a master’s in public health from Tufts School of Medicine in five years, at least a year less than if both degrees were pursued sequentially. The bonus is that students save time and tuition dollars.

Students can enter the program after their second year of dental school, and approximately two students per year will be admitted, says Wright.

The U.S. Health Resources and Services Administration has committed startup funds for partial tuition support, paying approximately 50 percent of tuition toward the M.P.H. degree for the first 10 students to enroll.



Giles Eady, of Morehouse College, with Nicholas Gordon, D12, Joseph Nelson, D04, and William Hayes, president of the Greater Boston Morehouse College Alumni Association.

PARTNERSHIP WITH MOREHOUSE COLLEGE

The dental school opened its doors to admissions officials from Morehouse College in Atlanta last fall, when the historically black college held an information session at One Kneeland Street for prospective students.

Students from Tufts' health sciences schools who are alumni of Morehouse, an all-male school, and Spelman College, its all-women's neighbor, talked about higher education in the health professions with the 50 people who attended, including high school students from the Boston area.

"It's the first time that we've had this kind of agreement with Tufts, and we'd like to see about continuing it into the future," said Giles Eady, assistant director of admissions at Morehouse. The idea of hosting the event was suggested to Eady by Aundrea Vereen, D11, a Spelman grad who is now in her first year of the postgraduate program in prosthodontics at Tufts.



Spelman College alumni Ryan Rasmus and Lytia Fisher, both M14.

CLASS OF 2011 updates

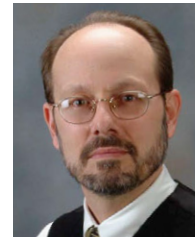
Since the post-graduation plans of the Class of 2011 were published in the Fall 2011 issue of *Tufts Dental Medicine*, other members of the class have let us know what they're up to:

Entering private practice were Corie Rowe, in Illinois; Albert Coombs III, in Maryland; Rhobor Uviasah, in Maine; and Michael Luu, in Rhode Island. In private practice in Massachusetts are

Karishma Adeshara, Myungwon Joyce Baek, Jennifer Eitutis, Joellyn Del Signore, Vina Lu, Stacey Malcomson, Anthony Paolucci and Ingrid Pena de Carreno.

Julie Cooper-Pratt is practicing at a community health center in Massachusetts, and Victoria Kaplan is a community health practitioner in a private practice in Massachusetts.

NEW LEADERSHIP IN ADMISSIONS AND STUDENT AFFAIRS



Robert H. Kasberg Jr.

Robert H. Kasberg Jr., the former assistant dean for student affairs at Indiana University School of Dentistry (IUSD), joined Tufts Dental School on March 1 as associate dean

for admissions and student affairs. He succeeds Mark Gonthier, who was promoted to executive associate dean last summer.

Kasberg was selected after a national search that included on-site interviews with key stakeholders at the dental school. James Hanley, D75A, DG79, associate dean for clinical affairs, chaired the search committee.

Prior to serving as assistant dean at IUSD for seven years, Kasberg was the school's director of admissions for three years. From 1996 to 2002, he was assistant dean of the graduate office at Indiana University–Purdue University Indianapolis, where he received his undergraduate degree. He holds a Ph.D. in anthropology from Yale University,

A native of Indianapolis, Kasberg is a U.S. Navy veteran. He spent six years in the Peace Corps, working with tribal Filipinos on the island of Mindoro, and is fluent in two Filipino languages. He also worked for the Indiana University Center on Philanthropy. During his time at IUSD and IUPUI, he developed strategies for recruiting African American and Latino students.

Christopher Moriarty, D12,
in the predoctoral clinics.



SECOND FLOOR GETS THE GOLD

The renovation and expansion of the predoctoral clinics on the second floor of the dental school achieved two goals: increasing work space for third- and fourth-year students and their patients and contributing to the green culture at One Kneeland Street.

The project, which was completed last fall, has been awarded Gold LEED (Leadership in Energy and Environmental Design) certification for sustainability in recognition of water and energy efficiency, the use of recycled materials, provisions for recycling waste, the use of low-emitting materials to minimize off-gassing, indoor air quality and overall minimal environmental impact.

LEED is a voluntary rating system developed by the U.S. Green Building Council.

“The LEED Gold certification comes during an exciting time at Tufts, when President Anthony Monaco is personally chairing a new Council on Campus Sustainability to promote environmental responsibility across the university,” says Mark Gonthier, executive associate dean. “This achievement may be considered the pinnacle in a string of sustainability-related accomplishments at the dental school over the last few years.”

Among those was the receipt in 2008 of Silver LEED certification for the five-story expansion of the dental school. The following year, single-stream recycling was implemented in the building.

“The dental clinics moved to digital radiography about six years ago, eliminating the use of X-ray film, which contains lead and requires chemicals to develop,” Gonthier said. “We also worked with clinic vendors to reduce the amount of packaging, and therefore trash, for supplies. “We have a Green Initiative student group spearheading other activities,” he said.

The second-floor renovations mark the first time the predoctoral clinics have been expanded since the dental school moved to One Kneeland Street in 1973. The project added 54 operatories, 48 chairs divided among four group practices, and an emergency clinic with six operatories, bringing the total number of predoctoral clinic chairs to 168.

The work also created an oral and maxillofacial radiology suite with five digital radiology rooms, including one with a cone beam CT imaging system and another with a panoramic imaging system; a dispensary; a predoctoral satellite lab, facilitating simple lab procedures during patient visits; consultation rooms and instruction stations.

“I appreciate the beauty and positive feel of the space,” says Maureen Lombard, director of clinic operations. “While it is a large and busy clinical space serving 150 patients per day, the colors and traffic flow create an environment of a calm and efficient community.”

Doc Exchange

French students practice dentistry, American-style
by **Jacqueline Mitchell**

WHILE STUDENTS COME TO Tufts School of Dental Medicine from all over the world, the school has long aspired to establish a student exchange program with an institution overseas. Yohanny Noel and Clemence Wazana, both in their fifth and final year of dental training at the University of Strasbourg in northeastern France, last fall became the first exchange students eligible to treat patients in the Tufts clinics.

“This is the first group from anywhere in the world able to do more than just observe in our clinics,” says Noshir Mehta, DG73, DI77, the school’s associate dean of international relations. Unlike past visitors, who could only observe because of complex U.S. health and insurance regulations, Noel and Wazana officially enrolled as Tufts students, allowing them to practice in the school clinics alongside their peers.

To select French students for the exchange, Mehta, James Hanley, D75A, DG79, associate dean for clinical affairs, and Mark Gonthier, executive associate dean, traveled to Strasbourg in July 2011 to interview five candidates. “We think we found the best two,” says Mehta, professor and chair of general dentistry.

Chosen for their clinical skills, academic achievement and fluency in English, Noel, who is originally from Lyons, and Wazana, a native of Strasbourg, had completed three years of didactic training and one of clinical training in France before coming to Tufts. So when they spent three months in the dental school clinics with D12 and D13 students, they were experienced enough to be able to detect the differences between American and European dentistry. The forceps, for example, aren’t the same shape here as they are overseas, and so the French students had to learn to hold the instrument in a whole new way.

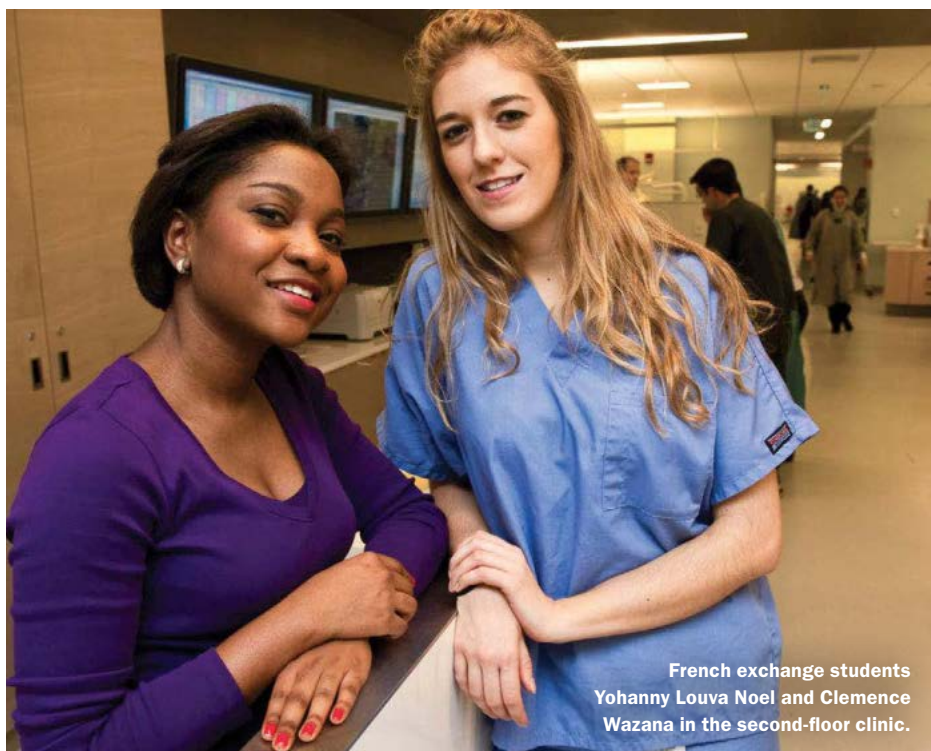
Noel and Wazana also observed two major differences in dental practice in the

United States and France. For one thing, France’s socialized medicine system means patients generally don’t pay for dental care. But if a treatment plan calls for something above and beyond standard care—a crown, for example—the patient has to pay out-of-pocket. As a result, Noel and Wazana say, patients often opt for the less-expensive route, even though it may not be the gold standard of care.

Mehta. “You don’t always need the right tools. You need the right attitude,” he says. “It’s very good for our American students to how see dentistry is done in other parts of the world.”

Right now, Tufts students mainly experience international dentistry on mission trips to places of great need, such as Haiti and Zambia. That’s important exposure, Hanley says, but having the chance to practice in Europe offers yet another kind of education. “Strasbourg also does a tremendous amount of research,” he notes. “We are looking down the road at partnering with them in that arena as well.”

Plans are in the works to send two Tufts dental students to study in Strasbourg



French exchange students
Yohanny Louva Noel and Clemence
Wazana in the second-floor clinic.

“Here in the United States,” says Wazana, “we always do the ideal plan. From an educational point of view, it’s better as a student to always do things the best way.”

The pair was also struck by the amount of technology Tufts students use, including digital X-rays and electronic patient files. “In France, everything is paper-based,” says Noel. “We got the chance to work with a lot more technology here.”

Better technology doesn’t necessarily translate into better care, though, cautions

later this year. The goal is to send as many as five students to Strasbourg and establish an externship there, says Hanley. Noel and Wazana promise they’ll mentor the Americans, just as Paul Singh and Camille Secor, both D12, were glad to show the Strasbourg students the ropes at One Kneeland Street.

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

ORAL AND MAXILLOFACIAL PATHOLOGY

Jonathan Garlick, professor and head of the Division of Cancer Biology and Tissue Engineering, organized the Tufts Interdisciplinary Research Symposium, "Driving Successful Science at Tufts in the 21st Century," in February.

PRESENTATIONS:

- "Stem Cell Research: Guiding Best Practices in the Regulatory Environment," Danish Association for Research Managers and Administrators, November 2011.
- "The Impact of the Embryonic Stem Cell Debate: When Science Meets Policy and Ethics," Tufts Dental School Lunch Lecture Series, November 2011.
- "Emerging Interdisciplinary Teams at Tufts: Process and Practice," Science at Tufts for the 21st Century, February 2012.

PUBLICATIONS:

- "iPSC-derived Fibroblasts Demonstrate Augmented Production and Assembly of Extracellular Matrix Proteins," Y. Shamis, K. Hewitt, S. Bear, A. Alt-Holland, H. Qari, M. Margvelashvili, E. Knight, A. Smith and J.A. Garlick, *In Vitro Cellular & Developmental Biology—Animal*, in press, 2012.
- "The 3D-Tissue Microenvironment Modulates DNA Methylation and E-cadherin Expression in Squamous Cell Carcinoma," T. DesRochers, Y. Shamis, A. Alt-Holland, Y. Kudo, T. Takata, G. Wang, L. Jacks-Grusby and J.A. Garlick, *Epigenetics*, 7:1, 1–14, 2012.
- "PDGFR Expression and Function in Fibroblasts Derived from Pluripotent Cells Are Linked to DNA Demethylation," K. Hewitt, Y. Shamis, E. Knight, A. Smith, A. Maione, A. Alt-Holland, S. Sheridan, S. Haggarty and J.A. Garlick, *Journal of Cell Science*, in press, 2012.

Michael Kahn, professor and chair

PRESENTATIONS:

- "Current Concepts in Otolaryngology Head and Neck Pathology," Massachusetts Medical Society, Boston, October 8, 2011.
- "Oral Cancer Screening," Oral Medicine in Clinical Practice, Tufts School of Dental Medicine, November 4, 2011.
- "Tongue-Tied: A Story Not Silenced by Stage IV Oral Cancer," Yankee Dental Congress, Boston, January 28, 2012.
- "Key Issues of Oral Screening Tools/Devices," 61st annual scientific session of the American Academy of Fixed Prosthodontics, Chicago, February 25, 2012.

PUBLICATIONS:

- "Glandular Odontogenic Cyst: Analysis of 46 Cases with Special Emphasis on Microscopic Criteria for Diagnosis," C.B. Fowler, B.B. Brannon, H.P. Kessler, J.T. Castle and M.A. Kahn, *Head &*

Neck Pathology, DOI 10.1007/s112105-011-02983-3, 2011.

- "The Emerging Role of Human Papillomavirus in Oropharyngeal Squamous Cell Carcinoma," M.A. Kahn, *Oral Cancer: New Trends in Risk Profiles and Screening Technology, Compendium of Continuing Education in Dentistry*, 32:1–8, 2011.
- *Your Pocket-size Dental Drug Reference*, 2012 edition, People's Medical Publishing House, USA, Shelton, Conn.

Pamela Yelick, G89, professor and director of the Division of Craniofacial and Molecular Genetics, has been nominated as treasurer of the American Association for Dental Research. Members of her laboratory attended the Tufts Cancer Center Retreat and Poster Session, held on the Medford/Somerville campus on October 11, 2011. Yelick served as session chair at the annual meeting of the Biomedical Engineering Society, held in Hartford, Conn., October 12–15, 2011. In December 2011, Yelick and research associate **Weibo Zhang** presented their work in tissue engineering at the TERMIS North America 2011 Annual Conference and Exhibition in Houston. In February, Yelick participated as a member of the Musculoskeletal Tissue Engineering Study Section of the NIDCR/NIH at a meeting in Seattle.

PRESENTATIONS:

- "Mineralized Tissue Development, Homeostasis and Disease," Tufts Cell, Molecular and Developmental Biology annual scientific retreat, Portland, Maine, December 2011.
 - "Models for Dental Tissue Development and Regeneration," an invited talk at the 4th International Conference on the Development of Biomedical Engineering, Ho Chi Minh City, Vietnam, January 8–12, 2012.
 - "Dental Tissue Engineering" and "Animal Models for Human Craniofacial and Tooth Development and Regeneration," lectures at the 30th annual CIOSP Sao Paulo International Dental Meeting, Sao Paulo, Brazil, January 28–31, 2012.
- ### PUBLICATIONS:
- "Rb1 mRNA Expression in Developing Mouse Teeth," V. Andreeva, J. Cardarelli and P.C. Yelick, *Gene Expression Patterns*, January 25, 2012 (E publication ahead of print).
 - "Cytogenetic Instability of Dental Pulp Stem Cell Lines," M.T. Duailibi, L.D. Kulikowski, S.E. Duailibi, M.V. Lipay, M.I. Melaragno, L.M. Ferreira, J.P. Vacanti and P.C. Yelick, *Journal of Molecular Histology*, 43(1):89–94, February 2012; E publication, November 2, 2011.

ORAL AND MAXILLOFACIAL SURGERY

Morton B. Rosenberg, D74, professor and director of Anesthesia and Pain Control, received the Horace Wells Award from the International Federation of Dental Anesthesiology Societies at its combined meeting with the American Dental Society of Anesthesia on March 2 in Hawaii. He lectured on "Adverse Sedation Events in Pediatric Sedation/Anesthesia in Dentistry: What Is the Numerator? What Is the Denominator?"

PRESENTATIONS:

- "Combining Technology and Clinical Knowledge to Enhance Oral and Maxillofacial Education," annual meeting of the American Association of Oral and Maxillofacial Surgeons, Philadelphia, September 2011.
- "Pediatric Sedation Outside of the Operating Room: An International Multidisciplinary Symposium," Children's Hospital and Harvard Medical School Department of Continuing Education, Boston, September 2011.
- "Preparing Dental Office Staff to Manage Sedation and Anesthesia-related Emergencies Using Task Training and High Fidelity Human Simulation Education," D.E. Becker, M. Rosenberg, K.E. Crowley, K. Charlton and J.C. Phero, Society for Simulation in Healthcare, New Orleans, 2011.

PUBLICATIONS:

- "Use of Simulation for Licensure, Credentialing, Certification and Maintenance of Licensure and Certification," A. Ziv, E. Holmboe, M.A. Rizzolo, A. Sachdeva and M. Rosenberg, *Simulation in Healthcare*, Vol. 6 (7) Supplement, August 2011.
- "Intraosseous Access in Oral and Maxillofacial Surgical Practice," R.J. Smart, S. Marsh and M. Rosenberg, *Journal of Oral and Maxillofacial Surgery*, 69:2708–2713, 2011.

ORTHODONTICS

Vassiliki Cartsos, DG94, DI10, associate professor

PUBLICATIONS:

- "Antiretroviral Prophylaxis and the Risk of Cleft Lip and Palate: Preliminary Signal Detection in the Food and Drug Administration's Adverse Events Reporting System Database," V.M. Cartsos, P.K. Palaska and A.I. Zavras, *Cleft Palate-Craniofacial Journal*, Vol. 49, No. 1, 118–121, January 2012.
- "Genomewide Pharmacogenetics of Bisphosphonate-induced Osteonecrosis of the Jaw: The Role of RBMS3," P. Nicoletti, V. Cartsos, P.K. Palaska, Y. Shen, A. Floratos and A. Zavras, *The Oncologist*, 1–10, 2012.

PERIODONTOLOGY

Wai Cheung, DG02, DI06, associate professor

PUBLICATIONS:

- "Identification of Interspecies Interactions Affecting Porphyromonas Gingivalis Virulence Phenotypes," E.L. Tenorio, B.A. Klein, W.S. Cheung and L.T. Hu, *Journal of Oral Microbiology*, Vol. 3, 2011.
- "Prospective Evaluation of the Use of Motorized Ridge Expanders in Guided Bone Regeneration for Future Implant Sites," R. Mazzocco, J. Nart, W.S. Cheung and T.J. Griffin, *International Journal of Periodontics and Restorative Dentistry*, September/October 2011.

Aidee Nieto Herman, associate clinical professor, received the Women's Leadership Award in Education at the annual meeting of the Hispanic Dental Association, held in San Diego on November 3–5, 2011. The award honors women who have helped to advance the HDA mission, displayed exceptional character and distinguished themselves as outstanding role models in dentistry. On January 23, Herman participated in the 2012 Youth Mentoring Forum at the State Street Financial Center in Boston that was organized by the Mass. Mentoring Partnership. On February 15, to celebrate Children's Dental Health Month, Herman was the keynote speaker at Mount Wachusett Community College in Fitchburg, Mass., where she gave a presentation on "Multicultural Crisis in Oral Health in America: The Role and Need for More Mentors and Leaders in the Dental Field." Herman and **Zuzana Mendez, DG97, DI08**, were appointed visiting professors at the University Pedro Henriquez Urena (UNPHU) in the Dominican Republic, and a cooperation agreement was signed between Tufts School of Dental Medicine and UNPHU. Herman was named one of the 100 Most Influential People for the Hispanic Community of Massachusetts by *El Planeta* newspaper.

PROSTHODONTICS AND OPERATIVE DENTISTRY

Mario Gatti, D00, DG07, DG08, assistant clinical professor, is the new president of the Massachusetts section of the American College of Prosthodontists.

Melissa Ing, D89, associate professor, was an exhibitor for Health and Sciences Career Days at the Connecticut Science Center on February 25. More than 700 visitors viewed her exhibit.

Ronald I. Maitland, A60, D64, an adjunct clinical professor, received an Appreciation Award of Excellence in Teaching from the University of Pennsylvania School of Dental Medicine on February 7. For many years, Maitland has

presented a preparatory seminar to assist senior dental students at Penn in their preparation for licensure exams. Tufts dental students have attended similar programs by Maitland each year. Maitland is a member of the Board of Advisors to Tufts Dental School.

Gianluca Paniz, DG06, adjunct instructor, was recognized by the Milan (Italy) Society of Osseointegration as a fellow and active member.

PRESENTATIONS:

- "Implant Aesthetics in the Era of Digital Dentistry: Computer-guided Planning in the Aesthetic Zone," 14th International Congress of Implant Therapy, Verona, Italy, September 15, 2011.
- "Achievement of Esthetics on Anterior Implant Restorations," American Dental Association, Las Vegas, October 11, 2011.
- "Integration of Digital Technology in the Prosthetic Rehabilitation: From Computer-guided Implant Placement to CAD/CAM Finalization," American College of Prosthodontics, Scottsdale, Ariz., November 3, 2011.
- "Esthetics in Fixed Prosthodontics," Advanced Dental Culture, Verona, Italy, February 2–4, 2012.

PUBLICATIONS:

- "Influence of Framework Design on the Cervical Color of Metal Ceramic Crowns," G. Paniz, Y. Kim, H. Abualsaud and H. Hirayama, *Journal of Prosthetic Dentistry*, 106 (5): 310–318, November 2011.
- "Influence of Abutment Material on the Gingival Color of Implant-supported All-ceramic Restorations: A Prospective Multicenter Study," E. Bressan, G. Paniz, D. Lops, B. Corazza, E. Romeo and G. Favero, *Clinical Oral Implants Research*, 22(6): 631–637, September 2011.

Amit Sachdeo, assistant professor

PUBLICATIONS:

- "An Analysis of Patient Grievances in a Dental School Clinical Environment," A. Sachdeo, S. Konfino, R. Icyda, M. Finkelman, H. Gulati, P. Arsenault and J. Hanley, accepted for publication, *Journal of Dental Education*.
- "Comparison of Microbial Changes in Early Re-developing Biofilms on Natural Teeth and Dentures," F. Teles, R. Teles, A. Sachdeo, N. Uzel, X. Song, G. Torresyap, M. Singh, A. Papas, A. Haffajee and S. Socransky, accepted for publication, *Journal of Periodontology*.

Hans-Peter Weber, professor and chair

PUBLICATIONS:

- "Clinical Accuracy Outcomes of Closed-tray and Open-tray Implant Impression Techniques for Partially Edentulous Patients," G.O. Gallucci, P. Pappaspyridakos, L.M. Ashy, G.E. Kim, N.J. Brady and H.P. Weber, *International Journal of*

Prosthodontics, 24: 469–472, 2011.

- "Dimensions of Buccal Bone and Mucosa at Immediately Placed Implants after Seven Years: A Clinical and Cone Beam Computed Tomography Study," G.I. Benic, M. Mokti, C.J. Chen, H.P. Weber, C.H. Hämmerle and G.O. Gallucci, *Clinical Oral Implants Research*, September 8, 2011 (E publication ahead of print).
- "Effect of Splinted and Nonsplinted Impression Techniques on the Accuracy of Fit of Fixed Implant Prosthesis in Edentulous Patients: A Comparative Study," P. Pappaspyridakos, K. Lal, G.S. White, H.P. Weber and G.O. Gallucci, *International Journal of Oral and Maxillofacial Implants*, 26: 1267–72, 2011.
- "Success Criteria in Implant Dentistry: A Systematic Review," P. Pappaspyridakos, C.J. Chen, M. Singh, H.P. Weber and G.O. Gallucci, *Journal of Dental Research*, 91: 242–248, 2012.
- "Implementation of a New Advanced Graduate Education Program in Oral Implantology," E. Kalenderian, H.P. Weber and G.O. Gallucci, accepted for publication, *Journal of Dental Education*.
- "A Systematic Review of Biologic and Technical Complications with Fixed Implant Restorations for Edentulous Patients," P. Pappaspyridakos, C.J. Chen, S.K. Chuang, H.P. Weber and G.O. Gallucci, *International Journal of Oral and Maxillofacial Implants*, 27: 102–110, 2012.

PUBLIC HEALTH AND COMMUNITY SERVICE

Mark E. Nehring has been appointed the Delta Dental of Massachusetts Professor in Public Health and Community Service and chair of the Department of Public Health and Community Service. He received his M.P.H. degree in 1992 from Johns Hopkins University, a D.M.D. from Boston University in 1981 and Master of Education in 1972 from the University of Maine. Before coming to Tufts, Nehring was the acting chief dental officer for the Health Resources and Services Administration (HRSA) and the chief dental officer of HRSA's Maternal and Child Health Bureau in Rockville, Md. He has worked for the U.S. Public Health Service for most of his career.

Carole A. Palmer, G69, professor, represented Tufts at the Collaboration Across Borders conference in Tucson, Ariz, November 17–21, 2011. She lectured on "The Challenges of Fostering Behavioral Change in Dental Practice" to students in the dental hygiene program at New Hampshire Technical Institute, Concord's Community College, on December 2, 2011. On January 1, she became the chair of the Board of Registered Dietitians for New Hampshire. On January 26 and 27, she lectured at Yankee Dental Congress on "Do Pills & Potions = Prevention?"

Safe Haven

Dental clinic caters to the needs of victims of domestic violence

TERRY REMEMBERS “SITTING IN THE WAITING ROOM SHAKING like a leaf” before her first appointment at the Tufts Dental Outreach to Survivors (DOTS) clinic. Like many survivors of domestic abuse, Terry (not her real name) finds that dental visits trigger powerful emotions associated with past traumas.

“Think how vulnerable you are when you are lying back in a dentist’s chair,” says Terry, a middle-aged elementary school teacher who sought restorative treatment, in part, because her missing teeth made her self-conscious when talking with her young students. “The dentists with DOTS have the training to understand,” says Terry. “They take it seriously when you say you need to take a break and walk around for a bit.”

Since the DOTS program was founded at Tufts School of Dental Medicine nine years ago, more than 400 victims of domestic abuse, including dozens of children, have received life-changing oral health care for free.

“We help abuse victims who are too fearful to be treated successfully anywhere else,” says program cofounder Kanchan Ganda, a professor of public health and community service at the dental school. “Some have suffered injuries to their teeth, but more have developed significant dental problems through years of neglect.”

Ganda estimates the annual cost of running the DOTS clinic is between \$500 and \$2,000 per patient, depending on the extent of work that is needed. For the past four years, the initiative has been funded by donations from dental school alumni, administrators and friends. In addition, faculty members have

“The dentists with DOTS have the training to understand. They take it seriously when you say you need to take a break and walk around for a bit.”

donated their professional services to the clinic. They include Roger Galburt, professor of oral and maxillofacial surgery and director of the Tufts Dental Implant Center, Maria Papageorge, D82, DG86, DG89, A12P, professor and chair of oral surgery, and Barry Briss, D66, DG70, D95P, DG97P, professor and chair of orthodontics.

Donors have included a number of Ganda’s former students, many of whom made their first gift to the School of Dental Medicine in response to her appeal. “I am incredibly grateful to everyone who has helped this program survive thus far,” Ganda says. “Their generosity has enabled us to keep saying yes when shelters call with patient referrals.” Ganda herself has donated all earnings from her 2008 textbook, *A Dentist’s Guide to Medical Conditions and Complications*, to the program.

Ganda became committed to a dental care program for abuse victims when a

domestic violence victim and her two young children abruptly stopped keeping their appointments at Tufts. “I feared the worst,” Ganda recalls. Because the treatments were covered by her husband’s insurance, the patient and her children could have been traced by her abuser.

Determined to find a way out of what she calls “the hopeless bind” that may have placed that patient in danger, Ganda began to think about ways to care for victims who have left or have started the process of leaving their abusers without involving third-party payers. With colleague Gülsün Gül, MPH04, Ganda launched the clinical component of DOTS nine years ago, with an initial grant from Delta Dental of Massachusetts.

Patients referred to DOTS by shelters, hospitals and community centers receive free treatment, and most important, leave no insurance paper trail. Their identities are kept confidential; patients in the clinic are referenced only by numbers, not names.

To help raise awareness of domestic abuse among the next generation of dental practitioners, DOTS also brings representatives from local social service agencies to talk with dental students about recognizing the signs of domestic violence. A majority of abuse injuries involve the head, neck or mouth, and so well-informed dentists can assume a critical role in identifying, treating and intervening in abuse cases.

“Our work has such an impact on these patients’ physical and emotional recovery,” says Nikki Shakourian, D12, whose decision to specialize in orthodontics was inspired by her work with an abuse victim. “People think dentistry is just about the big white smile. There’s so much more to it than that.” —DEBORAH BLAGG



GLICKMAN LIBRARY

The periodontology library on the 12th floor of the dental school has been named for former longtime faculty member Irving Glickman, D38, known as the “father of periodontology.” The Glickman Library was dedicated on January 25, during a ceremony attended by Glickman’s widow, Violeta Arboleda, DG51, and his children, Alan R. Glickman and Denise F. Glickman. Faculty member Paul A. Levi Jr., D66, DG71, led the fundraising campaign to name the library for his former teacher and mentor.

Glickman family members at the library dedication, from left: Eric Tondreau, A15, Sarah Tondreau, Denise Glickman, A15P, Jonathan Tondreau, Julian Glickman, Joyce Robbins, Alan Glickman, Violeta Arboleda, DG51, and Matthew Glickman.

Family Ties

Children name orthodontics operator for their father, Paul J. McKenna Jr., A46, D49

Loyalty to Tufts School of Dental Medicine and dedication to the specialty of orthodontics are part of the McKenna family DNA.

“Giving back to Tufts is in our genes,” says Stephen McKenna, D87, DG90, cochair of his 25th reunion class this year. “We do it because, for many in our family, Tufts has been the path to an incredibly rewarding profession. It’s part of our family history.”

Family members collaborated on a generous gift to name an orthodontics operator for their father, Paul J. McKenna Jr., A46, D49, DG81P, D87P, DG90P. Donors to the McKenna Clinical Operatory were: Stephen, D87, DG90, and Ellen McKenna, Karen and Paul McKenna III, DG81, Timothy and Maryellen McKenna, Nancy (McKenna) Nichols and her husband, John Nichols, and Robert McKenna.

“It was a tremendous honor,” notes Paul Jr., a longtime annual donor as a member of the Dental M Club.

Tufts is part of our history, says Stephen, who heads McKenna Orthodontics in Chicopee, Mass. Since 1981, Stephen’s older brother, Paul III, has been practicing in Connecticut, where he runs a multi-office McKenna Orthodontics practice.

“Throughout New England, Boston is referred to as ‘The Hub,’” says Paul III. “For our family, that ‘Hub’ is Tufts. Professionally, it is our center, our core, our base. Tufts’ educational integrity has benefited several generations of our family and allowed us to make a difference in the lives of scores of patients in New England.”

The McKenna ortho legacy began in

1918, when the first Dr. Paul McKenna, D17, bought a practice in Springfield, Mass. Now, McKenna Orthodontics includes 13 orthodontists and even more dentists and dental hygienists, according to *Health Care News*.

Paul McKenna Sr. was one of three brothers who enrolled in Tufts School of Dental Medicine in the days when tuition was \$100 a year. “In the 1920s, there were only about 50 orthodontists in the whole country, and my father’s Springfield, Massachusetts, office served patients from Hartford to Montreal,” says Paul Jr., who took over his father’s practice in the early 1950s.

When the practice moved to the 17th floor of a Springfield high-rise, *Health Care News* reported, Paul Jr. liked to joke that he was “the top orthodontist in New England.” Thus it is appropriate

that the new operatory named for him was built as part of an expansion project that added five floors to the dental school building at One Kneeland Street.

The McKenna tradition of philanthropy at Tufts also goes back in time, to the 1940s, when Paul McKenna Sr. was among a handful of donors who contributed \$1,000 or more to help the dental school relocate from Huntington Avenue to Harrison Avenue in Boston.

That tradition continues. Philanthropic support “is one way we can repay an institution that has meant so much to us and to the dental profession,” Paul Jr. says. “Giving back to Tufts is a good fit for us.”



A 1974 photo of the McKenna family, from left: Stephen, Tim, Paul III, mom Nancy with her arms around Robert, daughter Nancy and Paul Jr., for whom the new McKenna Clinical Operatory is named.

The Path Ahead



MY, HOW LIFE CAN SEEM LINEAR. THROUGH YOUR neighbor's eyes, it looks like you went to high school, then to college and then became a dentist. However, we know each path had many forks in the road, and most of us grappled with challenges, where we took pause and worried whether we were making the right choice. Do you, like me, remember the moment when your last education loan payment was signed? Those things didn't stop us from taking on more loans, more investments and more life. In reality we

have multidimensional lives. Our great education and, in turn, careers have opened us to endless possibilities for a wonderful life and fulfilling career.

Success for Tufts Dental School is no different. From the school's founding to the completion of the vertical expansion, Tufts Dental School has made choices and chosen new directions.

Just like dentists who wonder where they will live in retirement and what their next chapter might look like, Tufts School of Dental Medicine must plan for the future. As alumni, we help steer our dental school. The Tufts University Dental Alumni Association's Executive Council helps to give voice to you, our alumni. Where do you think the school should be heading?

Last year 4,475 students applied to our dental school. I spoke to the 184 first-year students and their families at orientation last August. The students are smart, they are capable and they need our assistance. Let's help them to be great dentists and great Tufts alumni! Reach out, offer advice or just listen.

Please join the Dental Alumni Association, and let's continue the conversation.

PETER A. DELLI COLLI, A69, D73
PRESIDENT, TUFTS UNIVERSITY
DENTAL ALUMNI ASSOCIATION
flossdriver@aol.com

THE PERKS OF MEMBERSHIP

It is time to renew your membership in the Tufts University Dental Alumni Association. With so many organizations seeking your membership, why should you join this one?

This is *your* organization, and it represents *your* school. We speak with pride when we say we are graduates of Tufts University School of Dental Medicine. We are proud of its reputation as a world leader in research, education and patient care. A Tufts diploma is a mark of excellence.

Did You Know?

Dues support the Tufts Dental Alumni Association, which has raised more than \$300,000 for student loan funds. Dues **subsidize Homecoming** & Reunion Weekend. Dues help produce the award-winning *Tufts Dental Medicine* magazine. Dues sponsor the **Student/Alumni Networking Event** every March, as well as other student/alumni programming. Dues support regional receptions and activities in New York, Boston, California and Florida. Dues **payers receive a \$75 credit toward a Tufts Continuing Education** course.

Annual Dues for 2011-12 are \$125.

TO PAY ONLINE: <http://dental.tufts.edu/dues>.
OR, PLEASE SEND CHECKS PAYABLE TO:
Tufts University Dental Alumni Association, to:
Tufts Dental Alumni Relations



Alana Bednarz, D12,
hones her skills
in preparing partial
dentures.

A Thumbs Up

Recent graduates say Tufts prepared them well for dental practice
by Gail Bambrick

KNOWING WHAT WORKS AND WHAT DOESN'T, AND RESPONDING TO trends and changing technology, are how a dental school curriculum evolves to meet the demands of the profession. At Tufts, a linchpin in this process is the annual alumni survey, which assesses how well a dental school education prepares students for their careers.

Every year since 1996, the survey has been sent to alumni who have graduated in the last two and five years. It asks them to evaluate their clinical preparedness for dental practice as well as their education in areas such as professionalism and the patient-dentist relationship.

The latest news from the field is that alumni are quite pleased with the didactic and clinical education they received here. The survey of the classes of 2006 and 2009 drew 264 responses, or 75.6 percent of the 129 men and 135 women who received it. Ninety-two percent said if they had it to do again they would pursue a D.M.D. degree, and 89.1 percent indicated they would choose Tufts again.

This kind of response is validation that alumni know the school cares about both their success and the future of the profession, said Michael Kahn, professor and chair of oral and maxillofacial pathology and chair of the school's Outcomes Assessment Committee, which uses the survey as one of many tools to enhance and evaluate the curriculum.

The school's ability to foster an environment where students, faculty and staff care about each other and their patients was evidenced in that nearly 97 percent of survey respondents strongly agreed or agreed that faculty are interested in the well-being of their students. Nearly 94 percent responded that administration and staff also emphasize student welfare. That level of satisfaction grew from earlier surveys, in which former students had sought more engagement with faculty. The

school responded by establishing a voluntary mentorship program in 2005, in which a faculty member or administrator may advise students on educational and career choices.

This emphasis on what the profession is calling "humanistic culture" has taken hold at dental schools around the country, Kahn said, and will be among the Commission on Dental Accreditation standards on which Tufts School of Dental Medicine will be evaluated when it undergoes reaccreditation in 2015.

Tufts is also keeping pace with another national initiative by broadening the teaching of ethics—across the curriculum, in the clinics and through a new chapter of the Student Professionalism and Ethics Association in Dentistry, a program Kahn and J. Michael Hall, an assistant professor of oral pathology, are helping to organize. Similar chapters are being established at dental schools across the country, and students who join these extracurricular clubs will tackle case studies to understand the complexities and outcomes of ethical challenges.

Ninety-four percent of alumni in the latest survey said the school promotes the development of professional and ethical behavior.

In the past two years, the survey has included questions about training in dental implants—an area on which Tufts has placed special focus because of the rapid changes in implant materials and techniques. Kahn said he was heartened to see that 77 percent agreed or strongly agreed that their courses and clinical experience had given them a strong foundation in implant treatment, and nearly 64 percent of respondents are providing implant prostheses or surgically placing implants in their practices.

"This is an emerging field in dental schools, and we have revised our curriculum to include additional preclinical and clinical training [in implants] so our students understand the latest procedures that allow a great success rate for more patients," Kahn said.

Also in the latest survey, 90 percent of alums said they felt they were well-prepared or prepared in the full range of dental practice, including diagnosis, treatment planning, endodontic treatment and caring for medically compromised patients.

Traveling Man

DEAN HUW F. THOMAS HAD A CHANCE TO INTRODUCE HIMSELF to the Tufts Dental community during a series of receptions that the Office of Dental Development and Alumni Relations sponsored in California, Florida, Maine and New Hampshire. In San Jose, Calif., John Pisacane, D86, hosted 20 alumni, friends and family at the Hotel Valencia. In San Francisco, Steven Dugoni, D79, A08P, A12P, hosted 20 guests at the University Club, and in San Diego, Todd Pacofsky, D99,

welcomed 20 alumni to the University Club atop Symphony Towers. Host Jess Kane, D74, DG76, G78, DG79, D04P, DG06P, gathered 65 alumni, friends and family at the Ritz Carlton in Naples, Fla. In Maine, Demitroula Kouzounas, D81, D10P, and Joseph Penna, D81, D10P, hosted 50 friends, family and alumni at the Portland Country Club. The Bedford Inn in New Hampshire was the gathering place for 40 alumni hosted by Laurie Rosato, D94, and Rich Rosato, D94.



▲ **BEDFORD, N.H.** Doug Moll, A81, D85, DG91, Dean Huw Thomas and David Stahl, D51.

◀ **PORTLAND, MAINE.** Gregory Frost, Michael Frost, D76, Dean Thomas and Barbara Frost.

SAN DIEGO, CALIF.
Thuan Nguyen, D14P;
Thomas Toma, D94;
Silvia Sanchez, D93;
Roland Melzer, D13P;
Marc Toma;
Todd Pacofsky, D94;
Patricia Melzer, D13P;
and Dean Thomas.





SAN JOSE, CALIF.
Bert Rouleau, D78;
Warren Lee, D187,
D15P; Julia Young, D09;
Marianne Blaney;
John Massoud, D10;
Leah Massoud, D09;
Dean Thomas;
John Pisacane, D86;
Jacqueline Lo, D184;
Sin-Yen Lin, D185;
Stephani Nguyen, D09;
and Jeremy Ueno, D06.



NAPLES, FLA. Maria Gove Tringale, senior director of dental development and alumni relations, Jean Fiore, Jess Kane, D74, DG76, G78, DG79, D04P, DG06P, and Louis Fiore, D62.



PORTLAND, MAINE. Joseph Penna, D81, D10P, Demitroula Kouzounas, D81, D10P, and Dean Thomas.



BEDFORD, N.H. Dean Thomas, Laurie Rosato, D94, and Richard Rosato, D94.

Meet and Greet at Yankee Dental

Dean Huw F. Thomas, Peter A. Delli Colli, A69, D73, president of the Tufts University Dental Alumni Association, and staff from the Office of Dental Development and Alumni Relations welcomed more than 1,000 Tufts Dental alumni, family and friends to the Westin Boston Waterfront on January 27 for a reception held in conjunction with this year's Yankee Dental Congress, New England's largest dental meeting. Many alumni also visited the Tufts Alumni Lounge, located on the exhibit floor, for a cup of coffee and a snack or to visit with classmates and colleagues.

The 2013 Yankee Dental Congress will take place January 30 through February 3 at the Boston Convention and Exhibition Center.



Aerwen Pollard, D10, Tiffany Woo, D10, and Jenna Khoury, D10, DG12.



Above: Viviana Avila-Gnau, Shahrzad Haghayegh, D02, Kateryna Latypova, D102, DG05, and Olympia Karacosta, DG99, D107.



Left: David C. Ching, D05, DG12, Russell Choy, DG13, Eileen Saunders, D11, DG13, Eunis Choi, D08, DG12, and Ninus Ebrahimi, D10, DG12.



Members of the senior class, Jeffrey Brown, Meghan Toland, Derek Nobrega and Mike Batcheller at the Yankee Dental reception.

CLASS OF 2012 ESTABLISHES SCHOLARSHIP TO HONOR CLASSMATE

THE DENTAL STUDENTS WHO WILL GRADUATE IN MAY HAVE DECIDED THAT their senior class gift will be in the form of a scholarship in honor of Catherine Dahl, D12, who was diagnosed with breast cancer early on as a dental student and went on to become a leader, mentor and friend to so many of her classmates.

Class presidents Inga Keithly, D12, and Jhon Giraldo Rodriguez, D12, announced the gift during the senior class reception that the Office of Dental Development and Alumni Relations hosted during the Yankee Dental Congress in Boston on January 27.

While balancing the role of wife, mother, patient and student, Dahl maintained excellent grades. The scholarship will be given to a worthy dental student who has faced adversity while attending Tufts. Dahl thanked her classmates for their encouragement and for honoring her in this way. Fifty classmates contributed to the scholarship during the reception, a total of \$2,105 for that one night.

Also at the reception, Dean Huw F. Thomas, Peter Delli Colli, A69, D73, president of the Tufts Dental Alumni Association; Jess Kane, D74, DG76, G78, DG79, D04P, DG06P, and Meghann Dombroski, D10, spoke to the seniors about the importance of staying engaged with the school by attending continuing education lectures and alumni events, volunteering to help with reunion, joining the alumni association or volunteering as faculty.



Class presidents Inga Keithly and Jhon Giraldo Rodriguez make their senior class gift along with their classmates.



Shubhpreet Dhillon and Catherine Dahl, for whom the new scholarship is named.



Donald LeClair, D79, on the practice range.

TOURNAMENT SPONSORS

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Silver Level (\$475)

Barr and Barr Inc.
Benco Dental Co.

Par Club (\$100 and/or prizes)

William Accomando, D67
All Star Charity Fundraising
Fred Bayon, D70
Cherie Bishop, D94
California Pizza Kitchen

Chaba Florists
Dante
Joseph DiPietro, D54, D81P, A86P, D87P
Blaise Eckert, D.D.S.
Joanne Falzone, D80
Tony Giamberardino, D85
Grill 23
Jacob Wirth Restaurant
J.P. Licks
Langham Hotel
Marriott Courtyard Boston Tremont
Massachusetts Dental Society
Janis Moriarty, D94
Pediatric Dental Associates of Winchester
Susan Peecher
Radisson Hotel
Daniel Ravin, D87
Ritz Carlton, Boston Common
Tufts Health Sciences Bookstore
Tufts Dental School, Division of Continuing Education
Tufts Dental Alumni Association
Tufts Dental School, Office of the Dean
Tufts Dental School, Alumni Relations and Development
Ultradent Products
Vapiano
W Hotel
Wellesley Country Club
Westin Boston Waterfront
Westin Copley Place

GOOD STROKES

Wide Open raises \$26,000 for Student Loan Fund

MORE THAN 100 ALUMNI AND FRIENDS OF TUFTS SCHOOL OF DENTAL MEDICINE hit the links and the courts at the Wellesley Country Club for the 29th annual Wide Open Golf and Tennis Tournament on September 19, 2011. The tournament, which is supported by dental alumni and corporate sponsors, raised \$26,740 for the Student Loan Fund, bringing the 29-year cumulative total to \$320,149. The 2012 tournament will take place on Monday, September 24, at the Wellesley Country Club.

**Team net
champions,
with a score of 58,
Steve McClusky,
Jeff Blair,
Al Dube and
Scott Negrucci.**



**Steve Rubin, D75, and
Dean Huw F. Thomas.**



**Above: Team gross champions, with a score of 71,
Rick DeRochea, Dave Askew, Neil Oliveira, D03, and
Derek Wolkowicz, D97, DG00. Right: Derek Wolkowicz,
D97, DG00, tennis tournament winner Carolyn Cottrell,
Peiman Mahdavi, D91, DG94, and John Millette, D91.**

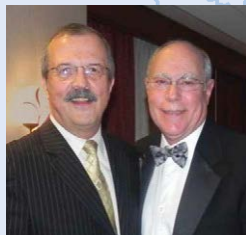


**Tufts President
Anthony Monaco,
Dean Huw Thomas
and Peter Delli
Colli, A69, D73,
president of the
Dental Alumni
Association.**

out & about

ORTHODONTISTS IN TOWN

The New England Society of Orthodontists held its 2011 annual meeting in Boston. The Tufts Association of Orthodontists and the dental school's Office of Development and Alumni Relations hosted a reception at the Marriott Copley Place, where more than 100 alumni joined Dean Huw F. Thomas and the department chair, Barry Briss, D66, DG70, D95P, DG97P.



Above: Dean Huw Thomas and Barry Briss, professor and chair of orthodontics.



Above: Jauna Souza, D07; Robert Wilson, DG76, DG06P; Diana Pardo, DI03, DG09; and Victor Grazina, DG06.

Right: Derek Wolkowicz, D97, DG00, and Steve McKenna, D87, DG90.



Jack Appelbaum, D63, Dean Huw Thomas and Peter Delli Colli, A69, D73, president of the Tufts University Dental Alumni Association.



Jean Chen, A12P, Min Seok Kim, D10, and Jake Chen, DI09, A12P, professor of general dentistry and director of the Division of Oral Biology.

LUCKY ALUMS AT ADA

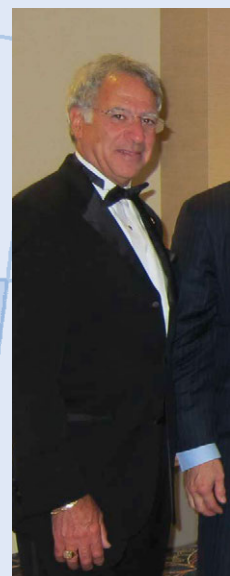
More than 100 alumni had the opportunity to meet Dean Huw F. Thomas at the Tufts Dental reception at Mandalay Bay in Las Vegas, which was held in conjunction with the annual meeting of the American Dental Association last October.

PROSTHODONTISTS IN ARIZONA

Hiroshi Hirayama, DG90, DI93, DG94, professor of prosthodontics and operative dentistry, hosted more than 40 alumni at a poolside reception at the Westin Kirkland Resort in Scottsdale, Ariz., on November 2, 2011. They were in town for the annual meeting of the American College of Prosthodontists.



Back row, from left: Lino Calvani, DG91; Savvas Kamalakis, DG05; Ekaterina Antonellou-Pantekidis, DG98, DG02, DI04; Vicki Petropoulos, D87; Sung Mean Chi, DG14; Hiroshi Hirayama, DG90, DI93, DG94; Junta Kido, DG14; and Mario Gatti, D00, DG07, DG08; front row: Takayoshi Suda, DG07, DG08; and Gianluca Paniz, DG06.





Dean Huw Thomas, Kelsey Karsten, D11, and Hubert Park, D11.



Left: Harold Gelb, D47, A78P, J83P, and Dean Huw Thomas.



Above: David Tepel, D06; Dana Marzocco, D05; Ancy Verdier, A96, D03, DG06; Caroline Barsoum, D05; Greg Diamond, DG85; Rob Berg, D03; Myrodati Lyrystis and Maria Chartzoulakis, D04, DG08.



Right: Kathy O'Loughlin, D81, executive director and COO of the American Dental Association, and Ronald Maitland, A60, D64, J90P.

BITE OF THE BIG APPLE

The Greater New York Dental Alumni Chapter held its fall meeting in conjunction with the Greater New York Dental Meeting on November 29, 2011, at the Marriott Marquis in the city. More than 80 alumni enjoyed dinner and visited with Dean Huw F. Thomas.



ORAL SURGEONS IN PHILLY

More than 40 alumni and friends attended a reception held in conjunction with the annual session of the American Association of Oral and Maxillofacial Surgeons in Philadelphia on September 12, 2011. Maria Papageorge, D82, DG86, DG89, A12P, professor and chair of oral and maxillofacial surgery, welcomed the group and updated alumni on school news.

From left, Ira Cheifetz, D74; Greg Chotkowski, D87; Ruba Khader, DG06, DG11; Maria Papageorge, D82, DG86, DG89, A12P; Richard D'Innocenzo; Mort Rosenberg, D74, A09P; and Ted Rosner, DG81.



From left, Paul Levi, D66, DG71, A95P; Michael Cwiklinski, DG08; Eduardo Marcuschamer, DG09; Maria Ferriol, D03, DG06; Rodrigo Romano, DG04, DG08; Alec Yen, D99, DG03; Kateryna Latypova, DI02, DG05; Dimitri Drakos, DG05; Catherine Moshirfar, D02, DG05; Fabio Mazzocco, DG07; and Harold Horton, D60, DG64.

PERIODONTISTS IN MIAMI

Alumni and friends gathered at the Loews Miami Beach in Florida on November 14, 2011, for a reception held in conjunction with the annual session of the American Academy of Periodontology.

UNIVERSAL LANGUAGE. In her dental mission work in Guatemala, Jamie Diament-Golub, D87, learned that the smile of a happy child transcends language and culture. Read more on page 57.



MAY 20

Tufts University's 156th Commencement
Academic Quad
Medford/Somerville
campus 9 a.m.
commencement.tufts.edu

MAY 26

Alumni reception in conjunction with the annual session of the American Academy of Pediatric Dentistry
Marriott Hotel & Marina
San Diego, California

SEPTEMBER 11

Alumni reception in conjunction with the annual session of the American Association of Oral and Maxillofacial Surgeons
San Diego Convention Center
Hilton San Diego Bayfront
San Diego, California

SEPTEMBER 24

Wide Open Golf and Tennis Tournament
Wellesley Country Club
Wellesley, Massachusetts
11 a.m. shotgun start; tennis tourney, 2-4 p.m., followed by reception and awards dinner

SEPTEMBER 29-OCTOBER 2

Alumni reception in conjunction with the annual session of the American Academy of Periodontology
Los Angeles, California

OCTOBER 18-21

Alumni reception in conjunction with the annual session of the American Dental Association
San Francisco, California

OCTOBER 31-NOVEMBER 3

Alumni reception in conjunction with the annual meeting of the American College of Prosthodontists
Baltimore, Maryland

NOVEMBER 27

Alumni reception and dinner in conjunction with the Greater New York Dental Meeting
Marriott Marquis
New York City

FEBRUARY 2, 2013

Alumni reception in conjunction with Yankee Dental Congress 38
Boston, Massachusetts

For the most updated information, contact the Office of Dental Alumni Relations at 617.636.6773; email dental-alumni@tufts.edu; or visit go.tufts.edu/dentalalums.

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- Create or enhance resumes with templates from Resume Builder.

dental.tufts.edu/careerlink

D45 William Robbins happily reached his 92nd birthday in April 2011. He has been retired since 1991, and is putting his energy into his synagogue in Holyoke, Mass., publishing the *Synagogue Monthly Bulletin* with his wife Mollie Blatt, who is 94. He enjoys reminiscing about the great time he had at Tufts Dental School when it was located on Huntington Avenue.

William Yanosy, A44, is 89 and living in a retirement home in Texas. He enjoys reading about other alumni and wishes his classmates good luck in their future endeavors.

D49 Esther Wilkins, DG66, received the William J. Gies Award for Achievement by a Dental Educator on March 19, during the annual session of the American Dental Education Association in Orlando, Fla. For more on Wilkins' distinguished career, turn to page 26.

D55 Arthur Sandler, A80P, J82P, volunteers at the Senior Friendship Center in Sarasota, Fla., providing diagnosis and treatment planning for senior citizens.

D57 Roderick Lewin received the American Association of Oral and Maxillofacial Surgeons (AAOMS) Humanitarian Award during the opening ceremony of the organization's 93rd annual meeting on September 14, 2011, in Philadelphia. The award recognizes AAOMS fellows and members who have committed significant effort to improving the quality of life for the public. Retired from private practice, Lewin continues to volunteer at the Fitchburg

Community Health Center and Tufts School of Dental Medicine. In recent years he has been working with the Ruth Paz Hospital for Burns and Pediatric Surgery in San Pedro Sula, Honduras; he serves as director of New Faces, a facial reconstruction team sponsored by the Ruth Paz Foundation, which works to help underprivileged and underserved children in Honduras. Lewin is secretary of the Massachusetts Board of Registration in Dentistry, and his work on the board was recognized by the Wachusett District Dental Society, which established a resource room in his honor at Mount Wachusett Community College School of Dental Hygiene.

Paul Szlyk, J86P, and his wife, Natalie Szlyk, J86P, moved to Rockville, Md., to be closer to their daughter and her husband.

D59 Jules Brodsky extends his best wishes to his classmates: "It is like a flash ago that we were in preclinic carving our wax teeth and hoping we would make it to the real clinic with our belt-driven handpieces with steel burs.

Manual chairs and stand-up dentistry were the latest style. It was great!"

D61 Chester Soliz announced the publication of his new book on Native American history, *The Historical Footprint of the*

Mashpee Wampanoag, in May 2011. For more on Soliz and his book, turn to page 10.

DG61 Donald Yanell is practicing orthodontics and dental sleep medicine four days a week in Norwalk, Conn.

D62 William Sherman retired from practice in December 2008. He splits his time between West Hartford, Conn., and Nantucket, Mass.

D63 Harold Kaplan, DG66, received the Frederick Moynihan Award for Outstanding Contributions and Service to Orthodontics from the Massachusetts Association of Orthodontists at the 2012 Yankee Dental Congress. Kaplan is an associate clinical professor of orthodontics at Tufts.

D66 Barry Briss, DG70, D95P, DG97P, professor and chair of orthodontics at Tufts, is the new president of the American Board of Orthodontics.

dental hygiene at the University of Vermont. He has continued to devote considerable time to educating dental professionals, both at Harvard and at Tufts, where he is an associate clinical professor of periodontology. And for two decades he has volunteered his time teaching to sold-out audiences at Yankee Dental Congress.

Thomas Winkler, A62, D10P, DG12P, received the Distinguished Service Award from the International College of Dentists (ICD) on January 27. He was honored at the ICD Annual Award Luncheon at the 2012 Yankee Dental Congress. He is a trustee emeritus of Tufts and a member of the Board of Advisors to the School of Dental Medicine.

D69 Richard Audet, A65, retired from the U.S. Department of Veterans Affairs and is an assistant professor in the department of craniofacial sciences at the University of Connecticut School of Dental Medicine.

Edward Kampf is planning his seventh trip to Central America, to visit Guatemala. He has retired from private practice, but continues to teach part time as a clinical instructor at New York University College of Dentistry.

D75A Andrew Herlich was awarded honorary fellowship in the American Association of Oral and Maxillofacial Surgeons in September 2011, "in grateful appreciation of distinguished contributions to the advancement of the ideals and purposes of the specialty of oral and maxillofacial surgery." He is a visiting professor of anesthesiology at the University of Pittsburgh School of Medicine and chief of anesthesiology at the University of

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Paul Levi, DG71, A95P, received the Clinician of the Year Award at the 2012 Yankee Dental Congress. He began his dental career in the U.S. Navy. Later, he earned a postgraduate certificate in periodontology at Tufts, opened a private periodontal practice in Vermont and taught

Pittsburgh Medical Center Mercy. He is the American Society of Anesthesiology's liaison to the American Dental Association, the American Association of Oral and Maxillofacial Surgeons and the American Dental Society of Anesthesiology and serves on the Ambulatory Surgery Committee of the American Society of Anesthesiologists. Herlich is a member of the Board of Directors of the Pennsylvania Society of Anesthesiologists and an alternate delegate to the American Society of Anesthesiologists. He is active in the Malignant Hyperthermia Association of the United States, serving as a hotline consultant. His wife is a pediatrician who volunteers for local horticultural groups and underserved medical groups. Both of his children are professional linguists. His daughter works for a nonprofit that promotes fair trade practices throughout the Americas and will be getting married in September 2012. His son works for the Japanese government,

teaching English in a northern prefecture of Japan.

D76 Lance Kisby is chief of pediatric dentistry and director of the pediatric dentistry residency program at Geisinger Medical Center in Danville, Pa. He has been at Geisinger since 2007.

D79 Jeff Prinsell received the American Academy of Dental Sleep Medicine (AADSM) Distinguished Service Award. He is a past president of AADSM, founding president of the American Board of Dental Sleep Medicine and past chair of the American Association of Oral and Maxillofacial Surgeons' obstructive sleep apnea (OSA) clinical interest group. He served on the American Academy of Sleep Medicine Standards of Practice Committee task force to update practice parameters for OSA surgery (*Sleep*, 2010). Prinsell's most notable clinical research is a 100 percent success rate in

maxillomandibular advancement (MMA) surgery for OSA in 50 consecutive patients (*Chest*, 1999). He wrote a chapter on MMA OSA surgery for the textbook *Current Therapy in Oral and Maxillofacial Surgery* (2011). Prinsell holds an M.D. from Vanderbilt University. He is a diplomate of the American Board of Oral and Maxillofacial Surgery, a visiting lecturer in OMS residency programs at Emory and Vanderbilt and a surgical consultant at several Atlanta-area sleep centers. He has a private OMS practice in Marietta, Ga., where he resides with his wife, Kim, and sons Jeffrey and Eric.

D80 Jerry Broman was promoted to the rank of colonel in the U.S. Army Dental Corps in October 2011, and is serving as commander of the U.S. Army Andrew Rader Dental Clinic in Fort Myer, Va.

D82 John Carpenter achieved a career milestone, completing more than 2,000 hours of continuing

education on September 26, 2011, according to the New York State Dental Association. New York law mandates that practicing dentists take 60 CE credit hours every three years. Carpenter routinely exceeds that, averaging 90-plus hours each year. His commitment to dental education has resulted in a new appointment: education chairman of the Ninth District Dental Association, which serves 1,600 dentists in Westchester, Rockland, Dutchess, Orange and Putnam counties in New York. Carpenter has maintained a private practice in New Windsor, N.Y., for 28 years.

D83 Dennis Sherman, DG86, E11P, reports that his son, Matthew, earned his master's degree in mechanical engineering from Tufts School of Engineering in 2011.

DG83 Laura Camacho-Castro, DI09, an associate clinical professor of pediatric dentistry at Tufts, has been accepted to the Massachusetts Dental Society's Leadership Institute, which provides dentists with the tools and training to become effective leaders in their communities, nonprofit organizations or professional associations on a local, state or national level.

D85 Anthony Giamberardino served as general chair of the 2012 Yankee Dental Congress, New England's largest dental meeting. In that role, Giamberardino assembled a management team of dentists and dental auxiliary volunteers who worked closely with Massachusetts Dental Society staff to organize the annual

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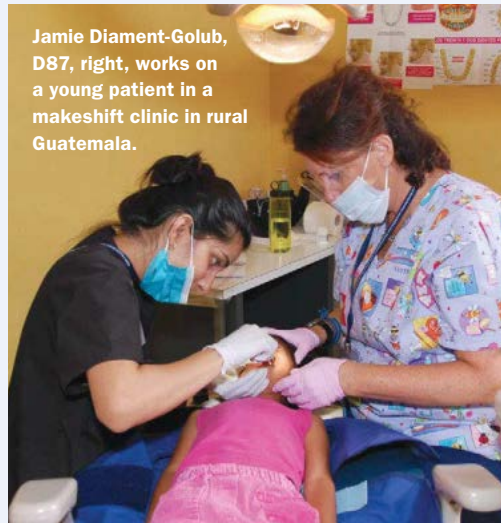
A WORLD OF CARE

In 2009, Jamie Diament-Golub, D87, found herself at a professional and personal crossroad. “What was next for me?” she recalls. “I had a successful practice in the suburbs of New York City, and my three sons were well on their way to independent lives.”

Then Diament-Golub, an assistant clinical professor of pediatric dentistry at Columbia University College of Dental Medicine, was asked to help mentor a group of dental students on an externship to Jamaica. “Timidly I agreed,” she said. “I am now going on my third year to Jamaica. I am hooked on volunteer dental outreaches.”

Last September, she added another dental mission destination, Guatemala, where she provided care to scores of Mayan children in Panajachel, a small community on Lake Atitlan in the Guatemalan highlands.

Diament-Golub’s mission was sponsored by Kids International Dental Services (*kidservices.org*),



Jamie Diament-Golub, D87, right, works on a young patient in a makeshift clinic in rural Guatemala.

with the help of Mayan Families, a nonprofit. Diament-Golub joined other health-care professionals and dental students in providing dental extractions and fillings and ridding many children of oral pain. These children have no access to dental care, and most have never seen a toothbrush.

Makeshift clinics were set up in schools and community centers, with tables and chairs doing double duty as op-

eratories. Lighting was dim, and running water was scarce. Dental caries were rampant, Diament-Golub said, and it was not unusual to do multiple extractions on primary teeth, sometimes up to eight teeth on one patient.

“I have seen a lot of dental decay in my career,” she said, “but I was so taken aback by these Mayan children. What was most impressive was the amount of smiling I saw and laughter that I heard. We were all warmly received and gladly welcomed by even the youngest and most anxious and apprehensive child.”

dental meeting. Giamberardino maintains a private practice in Medford, Mass., and resides in Wilmington, Mass.

D87 Craig Gruskowski is entering his 25th year of practice as a general dentist in his hometown of Littleton, Mass. He was an assistant clinical professor of restorative dentistry at Tufts for 15 years. He and wife Heidi have four children, 15-year-old triplets Sarah, Tabitha and Edward, and Jill, 12.

DI88 Ashok Patel is building a large clinic in India to provide dental treatment and health care

to underprivileged and poorly served tribal populations, including 50,000 school-age children.

DG90 Kikuko Hirayama, DI93, and Hiroshi Hirayama, DI93, DG94, a professor of prosthodontics and operative dentistry at Tufts, welcomed their new granddaughter, Kotomi, in October 2011.

D91 Cathleen Wallent has opened her own practice in Lawrence, Mass.

DG91 Maria Kritsineli, DI09, an assistant clinical professor of pediatric dentistry

at Tufts, is now a diplomate of the American Board of Pediatric Dentistry.

D93 Brian Genna was named vice president of dental services for the Edward M. Kennedy Community Health Center, which has offices in Worcester, Framingham and Clinton, Mass. He has worked at the health center since 1997.

D94 Peter Arsenault, an associate clinical professor of prosthodontics and operative dentistry at Tufts, has been selected as a fellow in the ADEA Leadership Institute for 2012–13. Since 1999, more

than 200 fellows from predoctoral, allied and advanced dental education have participated in the institute, a yearlong program designed to develop the most promising individuals at academic dental institutions as future leaders in dental and higher education.

D95 Chiann Gibson helped a patient in need obtain more than \$70,000 in dental work through the Give Back a Smile program. Sponsored by the American Academy of Cosmetic Dentistry Charitable Foundation, Give Back a Smile provides cosmetic dentistry to victims of domestic abuse. Gibson coproduces the

annual televised event *Fight Night* with her husband, the Emmy award-winning TV host Jim Gibson. The *Fight Night* benefit helps underprivileged kids in Washington, D.C., gain access to high-quality education and health-care services. The couple is also active in church, education and charitable organizations in the Naperville, Ill., area.

D00 Mario Gatti, DG07, DG08, married Emily Hinnendael on April 16, 2011, at Sky Meadow Country Club in Nashua, N.H. He lives in Boston and practices restorative dentistry in Cambridge, Mass.

D01 Paul Kang acquired Fitchburg Dental PC in Fitchburg, Mass., in June 2011.

When she was a young girl, **Thanh-Trang Nguyen** received health care at the Dorchester House Multi-Service Center and asked the providers there if she could learn to be a dental assistant. She enrolled in the center's dental assistant training program for teens and then decided she wanted to be a dentist. After graduating from Tufts Dental School, Nguyen was awarded a fellowship from Lutheran Medical Center to pursue her AEGD at the Dorchester center and is now the dental director there.

Jessy Sidhu has developed and patented a new dental device called Safe-Vac, a high-volume evacuation device that features a soft, yet rigid, cushioned tip. For more information, visit www.safe-vac.net.

Robert Stanton, who practices cosmetic dentistry in Fort Lauderdale, Fla., reports that he was invited to speak on CAD/CAM dentistry in Spain and

Italy. He also lectures on CAD/CAM digital dentistry across the country.

DG01 Shradha Sharma, D107, has taken over the Georgetown, Mass., practice of Joel R. Frankel, who retired after 38 years. Sharma has renamed the practice Georgetown Family Dentistry.

D02 Alireza Adeli-Nadjafi and his wife welcomed a son in October 2011.

Steve Lim, DG05, see D03.

D03 Kevin Loo, DG06, see DG05.

Shiva Sheikholeslam and Steve Lim, D02, DG05, welcomed a son, Ryan, in May 2011.

DG03 Andrea Holstein and her husband welcomed a son, Spencer, in 2011.

D04 Monica Garnache relocated to the San Francisco Bay area and bought a practice in Marin County in January 2010. Her husband John is her hygienist.

Elizabeth Katz, DG07, attained diplomate status with the American Board of Pediatric Dentistry on September 19, 2011.

D05 Michael Hwang announced his engagement to Kathleen Lenore Batchler. The couple planned to be married this spring.

Amy Ilief-Ala, a clinical instructor in pediatric dentistry at Tufts University School of Dental Medicine, is a new diplomate of the American Board of Pediatric Dentistry.

DG05 Diane Cha and Kevin Loo, D03, DG06, welcomed a girl in January 2012.

D07 Christine Rosato and Marcin Jarmoc, DG11, bought a new home in Danvers, Mass. Their daughter Sofia turned two in August, and they welcomed their second child at the end of 2011. Jarmoc finished his oral and maxillofacial surgery residency at Tufts in 2011 and is a part-time clinical instructor in oral and maxillofacial surgery. He is also in private practice in Haverhill, Mass. Rosato is working in Tewksbury, Mass., and is looking forward to opening her private practice in the fall of 2012.

Jeffrey Segner, DG10, see D08.

D08 Eunis Choi married **Jeffrey Segner, D07, DG10,** in October 2011.

Michael Hull and his wife, Courtney Hull, welcomed a daughter, Adelynn, on July 14, 2011.

Yoon Kang started his own dental practice in Newton Centre, Mass., in August 2011.

D09 Andrew Albee and his wife, Jennifer Albee, welcomed a son, John Hudson, on August 3, 2011.

Leah Massoud, see D10.

Joseph Pechter, a third-year resident in periodontology at Tufts, has developed a mobile dental app called PerioVoice, which is available for download on iPhone and iPad. PerioVoice is a periodontal charting program for hygienists, dentists and specialists that uses voice control to do charting without an assistant. To download the app, which is free for Tufts periodontal residents, go to www.periovoice.com.

D109 Jake Chen, A12P, professor of general dentistry and director of the Division of Oral Biology at Tufts, was the featured speaker at the Alumni Shanghai-Tufts Distinguished Speaker Series: A World of Difference on October 28, 2011. He also gave the keynote address at the 2011 Shanghai International Dental Conference that same month. Chen also holds an appointment in anatomy and cell biology at Tufts Medical School, where he maintains a laboratory. An international leader in dental and biomedical research, Chen has served on the National Institutes of Health's Oral, Dental & Craniofacial Science Study Section and as president of the International Association of Biomedical Research in Boston. He is an honorary professor at several universities in China and Korea, including Shanghai Jiao Tong University, Shandong University, South Medical University, West China Dental School at Sichuan University, Peking University School of Stomatology and Kyung Hee University.

D10 John Massoud and Leah Massoud, D09, welcomed a son, Costa, in the fall of 2010.

Tracy Shaw joined her father, Bruce Shaw, and Mauricio Tijerino in the practice of cosmetic, implant and reconstructive dentistry at the Shaw Center for Dental Excellence in Miami Beach, Fla.

D110 Milad Fadhoi and her husband, Fred Chirco, welcomed a daughter, Sophia, in February 2011.

REMEMBERING PETER PETRAKOPOULOS, D58

With great sadness we learned of the death of our beloved class of 1958 alumnus, Peter (Petros) Petrakopoulos, in Patras, Greece, on April 19, 2011.

It is noteworthy that Peter was one of the early Greek natives, after the war, to leave his home country and pursue advanced professional education in the United States. To certify his U.S. dental degree and obtain a practice license in Greece, he had to attend an additional year at the University of Athens, a requirement that since has been abolished.

Peter was born in Patras on September 23, 1931, and after graduating from high school, matriculated at Wagner University in New York, where he earned a B.S. in chemistry in 1954. Peter continued his studies at Tufts University School of Dental Medicine. Before returning to Greece in 1959, he pursued postdoctoral training at the University of Illinois at Chicago.

The only fully American-trained dentist in Patras, Peter established himself as the leading dental professional, with a group of patients who admired and respected him for his warm personality, humor and professional excellence.

Peter leaves behind his beloved wife, Evi, their two children, Froso and Dionesios, and two grandchildren, Melina and Evanthia.

Peter loved dentistry, and his innovative talent, skill and attention to all details set a high standard for dental practice in Greece. He strived to be the first in his profession and his community. We all remember Peter for his charm, warmth, great humor, honesty, and above all, his gift of giving to all and guiding young dental professionals with his extensive knowledge and vast experience. Peter was a friend of friends.

—CHRIS DOKU, D58, DG60, J84P

IN MEMORIAM

Leo F. Geoghegan, D39

November 30, 2011
Cranston, Rhode Island

Ralph A. Slater, A39, D42

October 22, 2011
Sarasota, Florida

Melvin N. Raskin, D43A

November 17, 2011
Warwick, Rhode Island

Ralph J. Tessier, D43A

November 17, 2011
North Myrtle Beach,
South Carolina

Charles G. Chigas, A40, D44

August 23, 2011
Billerica, Massachusetts, and
Clearwater, Florida

Herbert E. Daitch, D44

October 3, 2011
Wellfleet, Massachusetts

Ernest M. DiGeronimo, D49

November 8, 2011
Cape Coral, Florida

Lawrence J. Spellman, D49

March 11, 2010
East Providence, Rhode Island

Thomas E. Pollock, D50

November 3, 2011
Barefoot Bay, Florida

Edward C. Richardson Jr., D50

August 8, 2011
Winchester, Massachusetts

George F. Benoit, D50, D81P

December 18, 2011
Peabody, Massachusetts

Albert F. Staples, D51

October 19, 2011
Oklahoma City, Oklahoma

Robert R. Binder, D52

August 1, 2011
Old Tappan, New Jersey

**Harold S. Boynton, D52,
D88P, D94P**

October 21, 2011
Millinocket, Maine

Harold L. Lerman, D53

November 2, 2011
Southbury, Connecticut

John G. Irons, D54

July 26, 2011
Woodford, Vermont

C. John Cox, D57

August 10, 2011
Fair Oaks, California

David T. Fenner, D58

August 6, 2011
Venice, Florida

Robert B. Hutchinson, D59

December 14, 2011
Cape Elizabeth, Maine

Joseph F. Wark, D60

November 20, 2011
Burlington, Vermont

Herbert E. Hammons Jr., D61

November 5, 2011
Northville, New York

Michael C. Pincelli, A64, D66

November 28, 2011
Plymouth, Massachusetts

Robert S. Johnson, D78

November 5, 2011
Largo, Florida

Clifford Wachtel, DG78

January 7, 2012
Kingston, Pennsylvania

**David San-Te Ko, DI80,
D11P, DG14P**

November 11, 2011
Palo Alto, California

**Jody Senora Rossetti,
D87, DG89**

January 14, 2012
Suffield, Connecticut



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JUNE 2

Esthetics in Implant Dentistry
Dr. Stephen J. Chu

JUNE 8

Seventh Annual Oral Cancer Symposium
Drs. Michael A. Kahn, Scott Benjamin, J. Michael Hall, Douglas E. Peterson, Richard O. Wein and Sook-Bin Woo

JUNE 8-9

Participation Course with Multiple Hard- and Soft-tissue Lasers
Dr. Robert A. Convisar

SEPTEMBER 14

Lecture, Radiology Certification Course
Clinical Sessions, September 15, 22 or 29

SEPTEMBER 28

An Endodontist's Day at the Orifice:
Diagnosis through Obturation and More
Dr. James K. Bahcall

OCTOBER 6

Grafting and Implants
Drs. Constantinos Laskarides,
Daniel Oreadi and Jong il Park

OCTOBER 18-20

Module I, Dental Sleep Medicine
Mini-Residency (in collaboration with the American Academy of Craniofacial Pain)

Module II, January 10-12, 2013

Module III, April 18-20, 2013

Drs. Noshir R. Mehta, Leopoldo P. Correa,
Jamison R. Spencer, Robert L. Talley and
others TBA

NOVEMBER 2

Dr. Herbert I. Margolis Lectureship:
Concepts and Controversies in
Contemporary Clinical Orthodontics
S. Jay Bowman

NOVEMBER 2-3

Dental Sleep Medicine Annual Symposium
Drs. Noshir R. Mehta, Leopoldo P. Correa
and others TBA

NOVEMBER 7

Improved Patient Care through Lawsuit
Protection and Prevention for Dentists
G. Kent Mangelson

NOVEMBER 9

Full-arch Overdentures
Dr. Lino Calvani

NOVEMBER 16

Diagnosis and Management of
Orofacial Pain Disorders
Dr. Steven J. Scrivani and others TBA

NOVEMBER 17

Guided Surgery Utilizing Nobel Clinician
Drs. Constantinos Laskarides,
Daniel Oreadi and Jong il Park

DECEMBER 7

Updates on Medical Alerts & Management
of the Medically Complex Dental Patient
Dr. Kanchan Ganda

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WIDE OPEN



Tufts
UNIVERSITY

Dental Alumni
Student Loan Fund

Can't participate this year? Please consider a \$100 donation to help future students of Tufts Dental and be listed as a tournament sponsor in *Tufts Dental Medicine* magazine.

Please complete the registration form and enclose your check, made payable to Tufts University Dental Alumni Association, and mail to:

OFFICE OF ALUMNI RELATIONS

Tufts University
School of Dental Medicine
One Kneeland Street, 7th Floor
Boston, MA 02111

FOR MORE INFORMATION

Phone 617.636.6773

Email dental-alumni@tufts.edu

http://dental.tufts.edu/alumni



2012 Wide Open Tournament Registration Form

Name _____

Graduation year or affiliation with Tufts Dental _____

Guest(s) name(s) _____

Address _____

Daytime phone _____

Email _____

My handicap is _____.

Cost includes lunch, tournament, reception and awards dinner.

Golf Tournament

\$350/player

\$1,300/foursome if signed up together

My foursome will include:

2. _____

3. _____

4. _____

Please check here if you would like to be placed in a foursome.

Tennis Tournament

\$200/player

Reception & Awards Dinner Only

\$75 for guests and noncompetitors

PAYMENT

_____ golfers @ \$350 each = \$_____

_____ tennis @ \$200 each = \$_____

_____ dinner only @ \$75 each = \$_____

_____ I will be unable to attend the 2012 WIDE OPEN, but I'd be proud to be listed as a sponsor for my \$100 donation to the Student Loan Fund.

My check for \$_____ is enclosed.

Please charge \$_____ to my

MasterCard VISA Discover

Card # _____ Exp. _____

Billing Address:

Street _____

City _____ State _____ Zip _____

TOTAL ENCLOSED \$_____

Please mail this form and your check, payable to Tufts University Dental Alumni Association, to Office of Alumni Relations, Tufts University School of Dental Medicine, One Kneeland Street, 7th Floor, Boston, MA 02111.

Registration confirmation and directions will be mailed to you prior to the tournament.

SPORTS FOR SCHOLARSHIP

OPEN

Come join the Tufts University
Dental Alumni Association for the
**30th Annual Wide Open
Golf & Tennis Tournament**

Monday, September 24, 2012

Wellesley Country Club
300 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.

Golf Tournament 11 a.m. shotgun start
Lunch included

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

Reception and Dinner Only
\$75 for guests and noncompetitors

REVIVAL

For centuries, the history of
the Wampanoag Indians went
unrecorded, and unrecognized.
Chester Soliz, D61, set out to
change that. For more on his
story, turn to page 10.

