THE TALES TEETH TELL

Monitoring the Mouth to Diagnose Disease

AQUEOUS SOLUTIONS
Banishing Bacteria by Purging the Pipes

ADDRESSING THE AFTERMATH
Dentistry Central to Disaster Response
A Message from the Dean

WELCOME TO THE SECOND ISSUE of Contact magazine. In our inaugural issue, we described the progress we have made in renovating our building—including improved waiting areas, streamlined business offices, updated dental clinics with redesigned chairs, and new, high-tech classrooms. But as you all know, it's not just bricks and mortar that make a great academic institution. More important are the people—the faculty, staff, and students who work within these hallowed halls.

In this issue of Contact you will learn more about the cutting-edge research being conducted at our school, including efforts to explore the relationship between dental diseases and systemic conditions such as diabetes, pregnancy, heart disease, osteoporosis, and arthritis. You will also read about our international interests and ties, our exceptional students, and our dedicated faculty.

If you look closely, you will discover common threads running through all of these stories. Together these threads form the fabric of the University of Alabama School of Dentistry. These threads join generation to generation, with each building upon that which the previous generation left for them, and they also represent the work of your colleagues—past as well as present.

The passing of our teachers and leaders always makes us recall the many gifts they have bequeathed to us. Dr. Victor J. Matukas came to UAB in 1975, and, after rising through the ranks, he was asked to serve as dean in 1990. During his tenure at UAB he touched the lives of many of our students, faculty, and staff. His passing last October saddens us all. Dr. Matukas left a legacy, following in the tradition of excellence set by those who came before him. Their work was not just a job, it was a passion—it was the very essence of their lives.

Our graduates and friends have an opportunity to contribute to this legacy. The University of Alabama School of Dentistry offers many ways of paying tribute in a lasting and meaningful manner to what the school has meant in your personal and professional lives.

As we begin the new year, I wish you and your family peace, joy, and good health. During 2001, I hope you will take the time to visit us and see firsthand the progress we are making on behalf of our profession—and, indeed, on behalf of all the citizens of Alabama.

Sincerely,

Mary Lynne Capilouto, D.M.D.
Dean, University of Alabama School of Dentistry
### Professional Pulse

News about the accomplishments, awards, honors, grants, and research findings of the students and faculty of The University of Alabama School of Dentistry.

### Cover Story

The Tales Teeth Tell—Researchers in the School of Dentistry are discovering connections between oral health and systemic disorders including diabetes and cardiac disease.

### Features

International Interests—Longstanding student exchange programs between the dental school and universities around the globe benefit everyone involved.

Comparing the Curriculum—Differences in dental education in the United States and Japan are a fascinating study, according to biomaterials expert Shiro Suzuki.

Resinous Restorations—New indirect composite resin tested at the School of Dentistry provides excellent wear resistance and esthetic properties.

Exceptional Opportunities—Two UAB dental students make the most of a rare opportunity to study at the National Institute of Dental and Craniofacial Research.

Aqueous Solutions—Special chair design in the dental school’s clinics allows for periodic purging of water lines, lessening the chance of exposing patients to bacteria.

Addressing the Aftermath—Dentists often play an important role in dealing with the details after natural and man-made disasters.

Athletic Assistance—Students and faculty in the School of Dentistry volunteer their efforts to assist the exceptional athletes of the Special Olympics.

Feature stories on some of the school’s outstanding faculty. In this issue, meet Patrick Louis, Raquel Mazer, and Thomas Weatherford.

Profiles of selected students—in this issue, Priscila Denny, Chrisy Congo, Sunil Philip, and Matt Brewer.

Following in the Footsteps—Why is it that so many sons and daughters of dental alums decide to enter their parent’s profession? Meet two families who share their reasons for making the School of Dentistry a part of their family tradition.
Suzuki Helps Design Appliance for Dysphagia

Shiro Suzuki, D.D.S., professor of biomaterials, has been awarded a grant supporting clinical evaluation of a device he helped design that helps dysphagic patients to swallow. The grant was made by the Toluyama Corporation and will help Suzuki and his colleagues at Showa University in Japan evaluate the effectiveness of the “Swalloaid” device on elderly edentulous individuals.

“I am expecting a visiting professor from Showa University who is an expert in this area to arrive at UAB this spring,” says Suzuki. “Our collaboration should lead to some very meaningful results.”

Suzuki says it is important to shine a light on the work being done in the field of dentistry to help those who are physically disabled. He will introduce the concept for this new appliance at the International Association for Disabled and Oral Health in Madrid, Spain.

FILLER NAMED TO ADEA’S LEADERSHIP INSTITUTE

Steven J. Filler, D.D.S., professor and assistant dean for student, alumni, and external affairs, has been chosen by the American Dental Education Association (ADEA) as one of 19 to participate in a year-long fellowship known as the ADEA Leadership Institute. Filler’s term began last July.

“Their individuals are among the nation’s finest dental school educators,” according to Richard W. Valachovic, D.M.D., ADEA executive director. “They are the trailblazers who will lead our institutions in the future.”

The institute is a three-phased program, beginning with a five-day session focusing on personal assessment, team performance, and active learning involvement. Phase II is a nine-month, intensive experience at the fellow’s home institution, during which he completes a project that focuses on issues critical to dental school and higher education administration. The third phase is a one-day leadership forum held in conjunction with the ADEA Annual Session and Exposition in Chicago next March.

1917 Clinic Receives Federal Support

The 1917 Dental Clinic has received an award of $24,057 from the Ryan White CARE Act Dental Reimbursement Program. This federally funded program provides reimbursement to dental schools and specialized clinics to help compensate the cost of providing dental care for patients with HIV/AIDS.

“The 1917 Dental Clinic strives to be self supporting,” says Jeff Hill, D.M.D., dental director of the clinic. “Although we’re not a ‘free’ clinic, we do provide services for a number of patients who would otherwise not receive dental care at all. Without funding from sources such as the Ryan White CARE Act—as well as other generous charitable organizations—the clinic would be unable to provide these much-needed services and may very well have to close its doors altogether.”

The retrospective grant was funded at approximately 65 percent of the total uncompensated costs incurred by the clinic for the services provided between July 1998 and June 1999.

DENTAL ALUMNI HONORED FOR ACHIEVEMENTS

Dean Mary Lynne Capilouto, D.M.D., recently presented honorary awards to alumni of the School of Dentistry. The Distinguished Alumnus Award was bestowed upon Mario Guillermo Martinez, Jr., D.M.D., and the Outstanding Young Alumnus Award was given to Leigh-Anne Tucker Nevins, D.M.D.

In remarks made during the awards ceremony, Capilouto described Martinez as man with a remarkable background. “Although he loves his profession, he loved freedom more—so much that he fled his homeland once it had fallen to Communist oppression,” she said. “He left behind an established dental practice and career for uncertainty in a new land. But this was a price he was willing to pay, for he longed to be what he had dreamed of all his life—a caregiver and a healer.”

Of Nevins, Capilouto said that “young graduates can follow the paths of those who came before them or blaze new ones. This year’s recipient of the Outstanding Young Alumnus Award does both. She represents what a young practitioner should aspire to by giving to her patients and giving back to her community and her profession.”

The Distinguished Alumnus Award is given to individuals age 40 and above, while the Outstanding Young Alumnus Award is made to those below the age of 40. Criteria for both awards include being a continuous learner, having made significant contributions in terms of care and volunteerism to the school, and being active in professional organizations. The first awards were presented in 1999 to G. Lewis Mitchell, Jr., D.M.D., and to Kevin M. Sims, D.M.D.
VICTOR MATUKAS, former dean of the University of Alabama School of Dentistry, passed away on October 5, 2000. He was appointed dean in 1990, a position he held until his retirement in 1997.

“Victor Matukas was one of the most intelligent individuals I have had the pleasure of working with,” according to his friend and colleague Peter D. Waite, D.D.S., M.D., professor and chair of the Department of Oral and Maxillofacial Surgery. “He had a photographic memory and a clear perspective on complex issues. As a teacher, he made difficult problems seem simple. Vic was objective, sincere, honest, fair, and he always spoke his mind. As do many others, I owe him a great deal.”

A native of Freeport, Texas, Matukas received his D.D.S. degree from Loyola University. He earned his Ph.D. degree from the University of Rochester, and his M.D. degree cum laude from the University of Colorado. He performed postdoctoral studies at Charity Hospital in New Orleans and the National Institute of Dental Research before continuing his studies and completing an internship at UAB Hospital.

Matukas was appointed assistant dean for hospital affairs at UAB in 1975, during which time he was also an associate professor in the Department of Surgery. He was also a senior scientist in the Comprehensive Cancer Center and a professor in the School of Dentistry’s Department of Oral and Maxillofacial Surgery. In 1985 he was named the first occupant of the Charles A. McCallum Chair of Oral and Maxillofacial Surgery. He soon became chair of that department before rising to the position of dean of the School of Dentistry.

A diplomat of the American Board of Oral and Maxillofacial Surgery, Matukas held positions in professional organizations such as the American Dental Association, the American Association of Dental Schools, and the International Association of Dental Research. He was also a member of the Southern Medical Association, the American Trauma Society, and the International Association of Oral and Maxillofacial Surgeons, among many others. He received the Most Excellent Fellow Award from the Alabama Dental Association in 1996.

Matukas was involved in a wide variety of research, including the use of the ceramic material durapatite in dental augmentation, root implants, and orthognathic surgery. He collaborated on dozens of articles published in such notable periodicals as the Journal of Cell Biology, the Journal of Oral and Maxillofacial Surgery, and the Alabama Journal of Medical Sciences. He also contributed chapters for many dental and surgical textbooks.

“Vic continued the tradition of excellence established at UAB and even raised the bar a notch or two,” says Waite. “Like many other residents and students, I am saddened by his death. But I will always remember him for the influence he has had on my life and my career.”

THE MATUKAS FAMILY ASKS THAT DONATIONS BE MADE TO THE FOLLOWING ORGANIZATIONS:

Our Lady of the Lake Building Fund
or Social Concerns Committee
PO Box 388
Pell City, Alabama 35215

The American Cancer Society
PO Box 685
Pell City, Alabama 35125
WHEN DENTISTS EXAMINE their patients, they have the opportunity to detect more than tooth decay or gum disease. Researchers in the School of Dentistry at UAB are discovering a host of connections between oral health and systemic disease, according to Marjorie Jeffcoat, D.M.D., professor and chair of the Department of Periodontics.

“It’s important to remain aware of possible systemic linkages whenever you have a patient in the chair,” she says. “We’re finding that many conditions and diseases of the body leave clues in the mouth for dentists to discover. This can lead to early diagnosis, sometimes far in advance of a patient reporting symptoms to their primary-care physician.”

Surgeon General Supports

According to the familiar children’s song, “the jaw bone’s connected to the neck bone,” and there’s truth in those simple lyrics. In many ways, the jaw, mouth, teeth, and surrounding tissue are intrinsically connected to the rest of the body.

“Every dentist knows that certain medical or systemic diseases can modify oral diseases. We know that diabetics who don’t maintain their disease well tend to lose bone around their teeth more quickly than other patients, for instance,” says Jeffcoat. “On the other side of the coin, there are dental diseases that affect the whole body. That’s why we feel that dental examinations should be included in general-health checkups.”

This link is underscored by the first-ever U.S. Surgeon General’s Report on Oral Health, which was released last May. Major findings in the report include the fact that “the mouth reflects general health and well-being,” and that “oral diseases and conditions are associated with other health problems.”

Jeffcoat was among the dental professionals who were called upon to help draft the document.

Written concisely and in layman’s terms, the report calls for further research and investigation of such linkages. “Dr. David Satcher, the surgeon general, had us condense and refine a thick sheaf of documentation into just a few pages,” Jeffcoat says. “He wanted to be sure it was widely circulated and written in a way that would lead people to read it.”

A century ago, Jeffcoat points out, the answer to “bad teeth” was to remove them. The expectation was that “toothlessness” would solve related health problems. Today’s answer is research that identifies and explains the relationships between a healthy mouth and teeth and the human body. The dental school is pursuing this kind of research through its clinics, in studies, and at the Special Caries Research Center (please see sidebar accompanying this feature).
Inflammation and Infants
In cooperation with the Department of Obstetrics and Gynecology, Jeffcoat is leading a study of risk factors for pre-term birth. Researchers have reviewed the medical records of 1,300 pregnant women, taking into account such factors as whether or not they smoke and whether or not they are underweight, as well as other habits and body characteristics.

In the dental aspect of the study, the key difference between test groups involves gum inflammation stemming from periodontal disease. Such inflammation produces the same chemicals that, at high-enough levels, can set off early labor and delivery in pregnant women.

“We determined that mothers with periodontal disease have five times as much risk for delivering low birth-weight babies as mothers with healthy gums,” Jeffcoat says. “We’re also doing a study of about 350 pregnant patients with periodontal disease to determine the best treatments for women.”

Jeffcoat says the next step in the study will involve intervention and treatment. Means of intervention being tested include routine cleaning and polishing, and scaling and root planing—both with and without administering an antibiotic. “Our goal, of course, is to find treatments that are not harmful to babies,” she adds.

Ananda Dasanayake, B.D.S., M.P.H., Ph.D., an associate professor in the Department of Oral Biology, has also studied periodontal disease as a risk factor for low birth weight. A native of Sri Lanka, Dasanayake first noted the correlation when he was studying maternal and child health in Thailand. Former dentistry Deans Joseph Volker, D.D.S., and Charles McCallum, D.M.D., later recruited him to UAB, where he continued his research.

“Low birth weight is a significant health problem,” says Dasanayake. “Such babies are about 20 times more likely than full-weight babies to die before their first birthdays. Those who survive the first year may have respiratory, neurological, or behavioral problems.

“In a joint enterprise with Meharry Medical College in Nashville and the University of North Carolina at Chapel Hill, we studied 421 pregnant women, most of them African Americans,” he continues. “We concluded that mothers with high levels of periodontal pathogens were more likely to have low birth-weight infants. It’s obvious that disparities in dental care lead to other problems, and we need to find some way to close this gap.”

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Caries and Cardiology
A connection is also emerging between chronic oral infection and another killer—heart disease. “The data are still somewhat controversial, as are most findings when they first come out,” says Jeffcoat. “But a number of people are looking at worldwide trends and seeing that patients with oral infections are at greater risk for cardiovascular disease than those without oral infections.”

In a UAB study called “HER BITE,” funded by the Wyeth-Ayerst pharmaceuticals company, researchers are studying 130 patients who have had cardiovascular disease to see how much periodontal disease they have.

“We do clinical exams, measure periodontal pockets, and then take radiographs to determine the degree of periodontal disease,” says Nicolaas Geurs, D.M.D., an assistant professor of periodontology. “Early analyses indicate that patients with a history of cardiovascular disease are nearly twice as likely to have periodontal disease as those with no such history.

“One explanation, though still not proven, concerns the presence of plaque,” says Geurs. “Bacteria in the dental plaque around teeth also can be found in atherosclerotic plaques. That bacteria can trigger little blood clots to form in the blood vessels and get trapped in the areas narrowed by plaque, triggering a heart attack.”

“Simply put, the significance of this study for cardiology is that if you treat oral infections in women, there’s a possibility of preventing them from having heart attacks,” says Michael Reddy, D.M.D., professor and postgraduate director of periodontology. “It’s all about how everything is systemically related. If you have an infection anywhere, even around your teeth, that could lead to adverse outcomes—maybe involving your heart.”

Sharing Tests and Treatments
In addition to these recent findings, Jeffcoat says that links have long been established between oral health and another major disease—diabetes. It’s known that people with diabetes have a higher-than-normal risk of periodontal disease, she says, and physicians and dentists caution diabetics to control their blood-sugar levels in order to avoid gum disease.

Geurs is trying new approaches. “Studies have shown that certain types of rats that are genetically predisposed to have diabetes also have a lot of periodontal disease,” he says. “We already know that diabetes makes periodontal disease worse, but new data indicates that it’s also harder to control blood glucose with insulin if you have infections. Periodontal disease could be one of those infections.”

Along with other departments at UAB, dental researchers have also conducted studies that connect oral health to osteoporosis and arthritis. Through the ongoing Women’s Health Initiative, scientists are measuring bone-density readings in the jaws and hips of women involved in the study. A correlation between bone loss in the two areas indicates that similar treatments may be developed to address both types of bone problems.

Another study, conducted several years ago, involves using digital subtraction radiography to measure bone and cartilage changes in the hands of patients with both periodontitis and rheumatoid arthritis. Jeffcoat and Larry Moreland, M.D., professor of immunology and rheumatology in the School of Medicine, found that similar methods can be used to monitor both diseases.

A History for Healing
With so much proof of the direct connection between oral and systemic health, how should dentists incorporate this knowledge into their day-to-day practices? Jeffcoat prescribes a three-pronged approach involving screening and diagnosis, prevention, and early treatment of periodontal disease. “It’s more vital than ever that dentists take medical histories and do systemic checks for signs of disease,” she says. “This includes making sure there are no swellings, abscesses, or swollen lymph nodes. We also recommend using the Periodontal Screening and Recording Examination, which only takes a few minutes to complete.

“It’s also important to take a dental history the same way a physician takes a medical histo-
ry,” she says. “Listening to a patient’s chief complaint and asking questions about signs, symptoms, and lifestyle habits are essential to the gathering of a complete medical history. As we teach our students, a thoroughly documented medical history is a prerequisite to providing appropriate care.”

Jeffcoat says dentists also need to know their patient’s medical histories in order to prevent problems. “Patients with certain heart problems need to be premedicated with antibiotics before so much as a cleaning, for instance,” she says. “We need to explain to new patients that our aim is to protect their health, not to pry into their lives,” says Jeffcoat.

Decisions regarding treatment are to be made between dentists and patients, she says, but a dentist spotting other potential medical problems may wish to contact a physician directly—with the permission of the patient. “If I were administering an antibiotic, pain medication, or other drugs that might cause an adverse reaction, consulting directly with the patient’s physician is advisable,” she says.

Jeffcoat warns against dentists or patients taking what she calls a “magazine approach” to diagnosis. “That’s applying a general concept to a situation, such as saying that everyone with periodontal disease is over the age of 40 with red gums,” she says. “You don’t want to make a judgment based on a generality. Every patient deserves individual consideration.”

A Healthy Self-Image

As important as physical health certainly is, mental well-being is equally valuable. Yet another study in which Jeffcoat is involved has established a link between feeling good about your teeth and psychological well-being.

“The patients involved in this study have no teeth at all and are wearing dentures,” she says. “Lower more than upper dentures tend to move all around and create problems for the wearers over time. So we’re replacing lower dentures with implants. All of the patients report a tremendously improved sense of well-being and self-esteem with the implants than they’d had with the dentures alone.

“That’s one of the things that’s most appealing about dentistry,” says Jeffcoat. “Not only can you contribute to people’s general health, but you can also help them smile again and feel good about themselves in the process.”

THE SPECIALIZED CARIES RESEARCH CENTER

While one focus of dental research is revealing how oral and systemic diseases are linked within individuals—what could be referred to as a horizontal connection—scientists in the Specialized Caries Research Center (SCRC) are exploring the transmission of decay-causing bacteria. There is evidence that such bacteria transmit vertically—from mother to child.

“Through molecular genetics, we use DNA fingerprinting to demonstrate how strains are transmitted,” says Page Caufield, D.D.S., Ph.D., the center’s director. “We also use genetic techniques to study ‘fidelity,’ which relates to how and what mothers transmit to their babies.”

Tied in with transmission is the notion of ‘clonality’—that some strains of caries-causing streptococci are more virulent than others. “The implication is that bacteria transmitted through clonality affect whether or not your teeth are susceptible to tooth decay,” says Caufield. “If we can identify such factors in mothers, we may be able to predict which children are at increased risk. Then we can take preventive measures.”

UAB’s caries research center is one of two such centers funded in 1994 by the National Institutes of Health (NIH). The other is located at Harvard University. Although the NIH has discontinued its funding after this year, the center’s work will continue through several smaller grants, Caufield says.

“ Tooth decay is the number-one infectious disease in the world, in terms of prevalence and cost,” he says. “In the United States, 70 percent of oral health problems stem from tooth decay, compared to 10 percent that are a result of periodontal disease.” The U.S. Surgeon General’s Report on Oral Health, released this past May, estimates that the nation’s dental bill will exceed $60 billion this year.

While tooth decay is obviously a big expense to Americans, it’s even more costly in other parts of the world. “The People’s Republic of China has 1.2 billion people and only 20,000 dentists,” says Caufield. “As the Chinese acquire more Western dietary habits, tooth decay is going to go right off the charts. In this case, prevention is the only route to go because the cost of treatment would be prohibitive.”

The SCRC collaborates not only with China, but also with Sweden, Brazil, Taiwan, Thailand, Guatemala, and other countries on research to reduce dental caries. Joseph F. Volker, D.D.S., founding dean of the School of Dentistry, helped pioneer dental research at UAB, and his successor, Charles McCallum, D.M.D., fostered many international links in dental research. Caufield credits both with helping create the collaborative arrangements that help make UAB’s dental research team so effective.

“The cooperation we enjoy with other professionals here at UAB is incredible,” he says. “The center’s co-director, Dr. Sten Vermund, is an epidemiologist who works in the area of geographic medicine and infectious disease. The center includes dentists, epidemiologists, and molecular biologists. The atmosphere of collaboration we have at UAB is more intense than what’s found at other schools such as Harvard and Case Western, and I give Dr. Joe Volker much of the credit for that. He was a dentist who didn’t want UAB to have two groups of scientists—one for medicine and another for dentistry—but a community that works together.”
CONTACT WITH other cultures can change the way a person sees the world. Not only can it lead to an expanded sense of perspective, but also to greater tolerance for people’s differences. That’s what dental faculty and students at UAB gain by participating in the school’s long-standing foreign exchange program.

Rate of Exchange
Beginning with an alliance with the University of Iceland’s Department of Odontology that was established by founding Dean Joseph Volker, D.D.S, the School of Dentistry has established a tradition of creating relationships with other dental teaching institutions around the globe. Charles McCallum, D.M.D., Dean Emeritus of the dental school and former UAB president, supported and expanded on those relationships, which now include exchange programs with countries such as Thailand, Germany, Italy, Saudi Arabia, France, Guatemala, Taiwan, Russia, Korea, Brazil, China, and Japan.

“We’ve had a tremendous number of people visit us from universities located in these countries, and that has created a wonderful personal and cultural exchange for everyone involved,” says McCallum, who was recently named mayor of Vestavia Hills, Alabama, in a landslide election. “Dr. Volker initiated the idea of international programs to broaden the horizons and vistas of the students who were here at the time.”

It’s hard to overestimate the value of cultural exchange, says McCallum. “As you get a people-to-people exchange with other nationalities, you come to understand some of their problems and issues, while they have the same opportunity to gain more respect for you,” he says. “I think some of the world’s problems could be better solved through university exchanges than through governments. If you give people from other countries the chance to visit and train and be educated here in the United States, then they gain an appreciation for this country they will carry home with them on their return.”

Reciprocal Relationship
Steven Filler, D.D.S., who serves as assistant dean for student, alumni, and external affairs, organized the most recent student/faculty exchange between UAB and Japan. Ten students and two faculty members from Japan’s Asahi and Meikai universities visited the dental school in August. They were assigned “hosts” who acted as guides and even interpreters during their week-long stay.

“The primary focus was on dentistry,” Filler says, “to show them the programs we have in place and what kind of teaching goes on here. We also wanted them to see our patients, the types of materials we use, the kind of research we do, and how the students interact with the faculty.”

Filler says what the Japanese students find most striking is the American students’ involvement in treating patients. The Japanese students train for clinical treatment by observing faculty and working on models. “This is obviously a foreign concept to us since we want our students to be proficient at seeing patients long before they graduate,” Filler says.

Shared Concerns
From their experience in Japan, Filler says the UAB students took away a broader understanding of their profession. “We give them a fantastic education here at UAB,” he says. “But part of being a professional is to have a broader view of the world. Through interactions with other cultures, we’ve all learned that, whether you’re in Birmingham or Japan, people are basically the same.”

Filler says the dental school gains a great deal from the relationship. “The way you become second-rate is to remain within your own environment and just rehash the same old things,” he says. “But reaching out and continuing to learn keeps you on the cutting edge.”
Comparing the Curriculum

Dental Differences in the U.S. and Japan

AS A NATIVE OF JAPAN who has spent the majority of his professional life in the United States, Shiro Suzuki, D.D.S., Ph.D., is quite familiar with the two countries’ systems of dental education and patient care. A professor of biomaterials, Suzuki also has played a significant role in fostering ties between a number of Japanese universities and the School of Dentistry at UAB.

“One of the things that’s always interested me is the different approaches dental programs take in terms of clinical treatment, patient care, and the general philosophy of the profession,” he says.

Culture and Curriculum
Since joining UAB more than a decade ago, Suzuki has served as a visiting professor and guest lecturer at Nihon and Fujita Health universities, both in Japan, where he presents on a variety of topics, including biomaterials research. One of his most popular lectures, however, is one comparing the American and Japanese dental systems.

Suzuki says the major difference is a result of the insurance program that affects all Japanese practitioners. “Japanese dentistry is based on a national insurance system,” he says. “A dental school’s faculty will always try to teach a variety of techniques, but instructors, students, and practicing dentists must adhere to the national health insurance policies.” For that reason, the treatment plan a clinician may consider best isn’t necessarily the one that’s approved by the system.

Another difference between the two programs is that Japanese students get very little hands-on clinical experience. “The Japanese believe that students must practice on models for a very long time before they will be prepared to treat a patient, so they don’t receive a lot of clinical experience while they’re training,” says Suzuki. “But it’s the exact opposite in the United States. With the thousands of patients we see here in the dental school’s clinics, we’re able to give our students a tremendous amount of direct experience before they graduate.”

Experience Is a Must
This limited clinical experience has become a problem in recent years, according to Suzuki. In the past, after students had graduated from dental school, they were licensed to practice the profession but had no idea how to provide actual patient care. To address this issue, Japanese institutions now mandate that dental graduates must complete a year of clinical experience before they can begin practicing on their own.

Suzuki is also concerned about the way Japanese dental faculty conduct their research. “The only opportunity that most of them have to pursue their research is after five o’clock, once their teaching responsibilities are done,” Suzuki says. The second major obstacle is the language barrier. “That’s why I encourage Japanese administrators to give their faculty more time for research and to help them develop the skills they need to spread the word of their discoveries.”

Shared Satisfaction
Despite these different approaches in training, practice, and research, Suzuki says the ultimate goals of any dental practitioner are the same. “No matter where I go, whether it’s in Germany, Japan, or somewhere in the United States, I find that we’re trying to accomplish the same thing—patient satisfaction through quality care,” he says. “And if the patient is happy, then the dentist is happy.”

BY REBECCA McCracken
IN THE FIELD OF INDIRECT composite resins, belleGlass HP is the most exciting new product currently available, according to Jean O’Neal, D.M.D., chair of the Department of Prosthodontics and Biomaterials in the School of Dentistry at UAB.

“This is a material that can be used as a white filling and also has excellent wear characteristics and esthetic properties,” says O’Neal. “It can also be used in certain places instead of a crown.”

UAB was instrumental in testing this heat- and pressure-cured composite, which was developed by Kerr, a subsidiary of Sybron Dental Specialties. O’Neal and a team of researchers including Karl Lienfelder, D.M.D., and Charles Cox, D.M.D., developed a clinical trial to evaluate the material. The trial, which involved testing the material in vivo over the course of five years, was the longest-running evaluation in the history of composite resins.

The innovative material has several advantages for both the patient and the dentist, O’Neal says. “It’s not as abrasive as porcelain to opposing dentition, and it also has the advantage of being fabricated outside the mouth, which decreases the chair time and problems associated with shrinkage from polymerization,” she says.

O’Neal’s UAB roots run deep. She earned her D.M.D. degree from the School of Dentistry and completed a residency in prosthodontics in 1980 before joining the school’s faculty. In addition to serving as professor and department chair, she lectures extensively on esthetics and ceramic restorations—her primary research interest.

Beyond the excitement of helping bring valuable new materials to market, O’Neal says she appreciates the difference they make in people’s lives. “As much as I enjoy teaching enthusiastic young people in an academic environment, I’m especially excited by the opportunity to try new things,” she says.

“You can’t imagine the effect that having a new smile can have on people, and it’s a pleasure to see the excitement students feel when they know they’ve been a part of that process. I am very fortunate to have found a profession I love so much and to have the opportunity to share my expertise with my students.”

O’Neal says she has seen an explosion of new techniques and materials in recent years. Remarkable advances have been made in bonding biomaterials to teeth, and exciting new restorative procedures also have also been developed.

Through her relationship with Kerr and other industries that support biomaterials research, O’Neal is able not only to be involved in developing exciting new materials, but also to share the latest advancements with her students and patients. “These new techniques and materials allow us to offer patients treatments we could not even have imagined just 10 years ago,” says O’Neal. “This is a really good time to be practicing dentistry.”

By Ella Robinson

Exceptional Opportunities

Students Play Role in NIH Research

FOR SEASONED DENTAL professionals, any affiliation with the world-renowned National Institutes of Health (NIH) is a heady experience. For students, it’s almost unimaginable—especially as part of a research program involving only 10 students from across the country. But that’s exactly what happened to two students from the School of Dentistry this past summer when they were invited to NIH headquarters as part of a special research program.

David Roden and Nathan Redmond, both juniors at the time, participated in the program through the NIH’s National Institute of Dental and Craniofacial Research (NIDCR). Working with dental researchers and scientists, they got the chance to view the laboratory side of dentistry and to participate in valuable research projects.

Firoz Rahemtulla, Ph.D., a professor of biomaterials who works closely with the school’s student research program, says that the students’ selection says a lot about them as well as the school. “Several years ago, the NIDCR initiated this intramural program to allow dental students to gain firsthand research experience working with some of the top sci-
Aqueous Solutions

Banishing Bacteria by Purging the Pipes

QUICK—make a connection between gardening and dentistry. Specialized tools? Splashing fountains? Close, but not the answer, says Michael Reddy, D.M.D., professor of periodontology and assistant dean for clinical activity and planning in the School of Dentistry at UAB.

“It’s called ‘biofilm,’ and it’s the same thing that happens with water that’s left standing in a garden hose, because bacteria will breed wherever there’s stagnant water,” he says. “There’s the same problem in public drinking fountains—and of course in the lines of a dental chair.”

Not that the idea of keeping the lines clean is a new one, says Reddy. “There have always been policies in place here in the dental school, such as running water through the handpiece and flushing out the lines between patients,” he says. “That might seem like common sense to many dentists, but that’s partly because we make a point of including that in their training.”

Recent segments on television news programs such as “20/20” have led to increased awareness of water-line purity in the general populace, however. “The TV folks focused on the question of whether the water is safe for anyone,” says Reddy, “but the real concern is with patients who might be immunocompromised.

“If the average person is exposed to bacteria in water lines, it probably won’t have any effect at all,” he says. “But if your patient is someone who is HIV positive or who recently had a liver transplant and is on immunosuppressant drugs, then you could really create a problem by exposing them to bacteria.”

Reddy says the school’s water system—and the quality of the city’s water—is already in good shape. “We’ve had our water lines checked and know that they are in good working order,” he says, “and the municipal water supply is relatively clean. But we have plans to make sure the water we use in our clinics tests even cleaner than city water.”

According to Reddy, the standard for water quality is based on counting “colony-forming units,” or the number of bacteria that will grow when a petri dish is exposed to water. “The standard for drinking water is 500 units. In fact, that’s what you’ll probably get in the bottled water you buy at the store,” he says. “Our goal is to get the school’s water down to a level of 200, which is the same standard that’s used for dialysis units.”

The school is working to achieve this goal by flushing each examination chair with a safe chemical solution once a week. The new chairs—designed by A-Dec—have a special feature that connects a bottle to the water line. “This allows us to attach the bottles containing the solution to each chair once a week,” he says. “Then we draw the solution into the chair’s water lines and let it sit overnight. A dental assistant will drain the chairs in the morning and flush the lines with fresh water.

“This feature was only made available recently,” says Reddy. “It was part of our decision when we were looking for new chairs, in fact. Not only do we want the best equipment for the benefit of our patients, but we also want to be sure our students will receive the best possible training available.”

By Cheryl Sloan Wray

By Russ Willcutt
They seem to be featured on the evening newscasts quite regularly—stories of natural disasters and transportation accidents. Floods, tornadoes, airplane crashes, and other disasters claim thousands of victims each year. And it’s also a fact that someone has to manage the mayhem.

As a member of the Disaster Mortuary Operational Support Team (DMORT), Richard Weems, D.M.D., fills that role. Whether it’s a train wreck, a car crash, or the aftermath of a force-five tornado, he lends his professional expertise to assist in the recovery and identification of the victims of disaster.

Team Approach

Working under the auspices of the National Disaster Medical System, the DMORT team members represent such fields as forensic dentistry, medical pathology, and forensic anthropology. The team is charged with responding to such crises in Region 4—the area consisting of Alabama, Florida, Georgia, Mississippi, Tennessee, and North and South Carolina. It also responds to aviation disasters when the National Transportation Safety Board (NTSB) asks for help. Weems says the bulk of DMORT’s work involves aviation.

“After the Valujet and TWA plane crashes several years ago, Congress pushed the NTSB to respond to any plane crash,” says Weems, who is an associate professor of diagnostic sciences and director of student and alumni affairs in the School of Dentistry.

Dentists are invaluable to disaster recovery and victim recognition, he says, since dental x-rays can help identify burned or skeletonized remains. He says his training in forensic dentistry makes him especially capable in this area.

“Quite often there’s only a tiny amount of dental remains left to be examined,” he says, “but I’ve been able to make several identifications based on a single recovered tooth.”

Seeking Support for DMORT

Weems’s concern for disaster victims didn’t begin when he was named to the DMORT team last April. Some years ago, he and Mario Martinez, D.M.D., a retired UAB dentistry professor, organized a dental identification team to handle local disaster situations. Though it’s been hard to secure adequate funding to train members over the years, Weems hopes that his work with DMORT can help bring about a change. “I applied for this position partly in hopes of blending our local volunteer personnel with the federal system in case a mass disaster should occur here,” he says.

Unfortunately, Weems has already experienced two local disasters. He helped identify victims of the L’Air Express air crash in west Birmingham, and also victims of the force-five tornado that struck Oak Grove, Alabama, and surrounding areas in 1998. Such work can be agonizing. “Although we’re concentrating on the task at hand, the devastation we witness can be quite troubling.”

No Lack of Interest

In an attempt to educate more dental professionals about DMORT as well as other aspects of forensic dentistry, Weems shares his experience and expertise through continuing education courses.

“I’m pleased to say that, after nearly every session, people approach me to ask how they can volunteer or become involved.”
AT THE ALABAMA SPECIAL OLYMPICS held in Tuscaloosa last May, everyone was a winner—and not just the 1,500 Special Olympians who competed. More than 50 faculty and students from the School of Dentistry at UAB attended, providing dental instruction and assistance for these very special athletes as part of the “Special Smiles” program.

“We made custom mouthguards for the competitors, gave them visual oral exams, coached them on proper brushing and flossing, scored them on their oral home care, and rewarded them with ‘healthy’ goody bags,” says Elizabeth Clemente, D.M.D. “We even helped referee an athletic event or two.”

A Special Situation
According to Clemente, an assistant professor of restorative dentistry and coordinator of the Advanced Education in General Dentistry program, this was the third year of the school’s involvement in the event. She points out that Special Smiles is the first opportunity many of the dental students and practitioners have had to work with special-needs individuals. “One of my goals in starting this community service project was to take away the myths about treating patients such as these,” she explains. “Many dentists don’t feel comfortable dealing with special-needs people. I wanted to help train a new generation of dentists who are familiar with them and have no qualms about handling the different oral issues special-needs patients can present.”

Clemente says the experience was a good one for herself and for the students, as well: “I can’t say enough about how great our students are in working with the Special Olympians. Not only do they volunteer their time for Special Smiles, but they also have to come to a training session before they can participate in the event. I show them a videotape to prepare them for dealing with special-needs people.”

She also notes that Special Smiles gives first-year students their first opportunity to deal with patients in a clinical setting. In addition to gaining invaluable experience, they also enjoy being treated like doctors for the first time—“and they have a lot of fun.”

Dental Data
An added bonus to the personal experience is the clinical data gleaned from the screening exams the School of Dentistry volunteers conduct as part of the event. According to Maureen L. Pezzementi, D.M.D., assistant professor of restorative dentistry, the data collected during the 1999 Alabama Special Olympics indicated that the dental needs of the state’s special athletes are not being met. “Alabama’s Special Olympians are 1.5 times more likely to have active tooth decay, 1.7 times more likely to have molar decay, and 2.5 times more likely to have ‘urgent care needs’ than the average national Special Olympian,” she says. Pezzementi explains that this information may be used to obtain federally funded insurance coverage for special-needs people so that they can get the dental care they need.

To help support Special Smiles, please contact Pezzementi at (205) 975-0899.
GROWING UP in São Paulo, Brazil, Raquel Mazer, D.D.S., was surrounded by dentistry. “I have several relatives who are or were dentists, including aunts, uncles, and cousins,” says Mazer. “Even my great uncle was a dentist. That’s why I’ve always been fascinated by the meticulous work involved in providing dental care.” Although her relatives had some influence on her decision to pursue dentistry as a career, she found herself drawn to the research bench instead of the examination chair.

Even while attending the University of São Paulo, where she received her dental degree in 1983, Mazer felt the influence of the United States. “The curriculum we followed was based on the ‘American’ model, so I had the opportunity to experiment with materials and experience a variety of techniques that are utilized here at UAB,” she explains.

In 1986 she took advantage of an opportunity to study under Karl Leinfelder, D.M.D, who is now retired from the Department of Biomaterials. “I had decided that I wanted to concentrate my efforts in the area of cosmetic restorative materials, and Dr. Leinfelder was the leading authority in that field,” says Mazer. “I also based my decision on the fact that UAB had an outstanding record of carrying out major clinical research studies and

GOOD TEACHING is about more than simply giving instructions. To keep the student’s attention, the successful educator must possess a rare combination of professional knowledge and communication skills. According to his students and colleagues, Patrick Louis, D.D.S.—an associate professor of oral and maxillofacial surgery—is just that type of teacher.

“Being a good surgeon doesn’t always mean that you’re a good teacher, too,” says Chris Mullenix, D.M.D., a fifth-year surgical resident who has known Louis for the past decade. “Some surgeons tell you what to do, but they don’t always tell you why. Dr. Louis takes the time to explain his reasoning.”

As course master for a variety of classes, Louis is responsible for organizing lecture content, calling on experts in specialized areas to share their experiences, and teaching many of the classes himself. He also serves as director of the residency program in the Department of Oral and Maxillofacial Surgery.

“He’s not an eight-to-five teacher, that’s for sure,” says Will West, D.M.D., a sixth-year resident. “He’s here at six in the morning, and he often doesn’t leave until eight o’clock at night—or later.” Louis estimates that he spends about half of his time teaching and the remainder in surgery. His clinical practice is as varied as his teaching regimen, including trauma, orthognathics, implants, cosmetics, and dentoalveolar dentistry. He says teaching makes him a better surgeon.

“We’re here to give the patients our best effort, and I try to demonstrate the best way to do that to my students,” he says. “I also use pictures from my cases in class, so it’s a very positive circle—my surgical practice influences my teaching, and teaching also influences my practice.”

Louis adjusts his approach to the level of the class he’s teaching. “Quite often, undergraduate students have so many classes that they’re struggling just to get through them,” he says, “but the residents are easier to motivate. They’re in your class because they’ve selected your specialty.”
was the leader in discovering esthetic materials to replace the dental amalgam.”

During her first year at UAB, Mazer received an international scholarship from the Rotary Foundation and was accepted into the graduate program, eventually being elected to the National Dental Honor Society. She received a master’s degree in dentistry in 1988 and his certificate in oral and maxillofacial surgery in 1990. He has been at UAB ever since, and he now serves on several university committees and as an examiner for the American Board of Oral and Maxillofacial Surgeons.

“I came to UAB because of people like Victor Matukas and Charles McCallum, who were real trendsetters in the field,” says Louis. “And I’ve stayed because of the vision of the current chair, Peter Waite. Because of these men, many consider this to be the best oral and maxillofacial surgery program in the country.”

By Sandra Bearden

GROWING UP on his family’s farm, Tommy Weatherford, D.M.D., understandably thought he might enjoy a career in veterinary medicine. During his sophomore year at Auburn, however, he realized that he was more interested in humans than horses. “My dad was paying the bills, though, so I thought I’d better finish what I’d already started,” he says with a smile.

After earning his degree from Auburn’s College of Veterinary Medicine in 1954, Weatherford joined the U.S. Army and served during the Korean War. Once his tour was complete, he decided to take advantage of the GI Bill to pursue his dream of treating people. He applied to the School of Dentistry at UAB, was accepted, and began his studies in the fall of 1957.

“My wife, Buddie, and I had gotten married the week before classes started, and we had planned to spend four years in Birmingham and then move to a nice little town we’d picked out in north Florida,” he recalls. “But Dr. Joseph Volker, who was dean at the time, asked me to join the faculty once I’d graduated, and he was a very persuasive man. To make a long story short, we’ve been here ever since.”

Before taking on his teaching responsibilities, Weatherford spent a year studying pathology and pediatric dentistry at UAB on a National Institutes of Health fellowship before completing his residency in periodontics—the specialty he has taught for the past 40 years in the dental school. He was director of the residency program for 20 years, also seeing patients in the faculty intramural practice.

Although his long-term plans didn’t originally include Birmingham—or even dentistry, in a way—Weatherford says that he’s glad things have worked out as they have. “I’ve had opportunities to move elsewhere over the years, but whenever I’ve gotten a job offer, I’ve made a list of the pluses and the minuses,” he says, “and the pluses at UAB always greatly exceeded those elsewhere.”

By Norma Butterworth-McKittrick
WHEN PRISCILA DENNY traveled from Brazil to visit the UAB campus six years ago, she never imagined that she would soon be enrolled as a student here. She was happy studying dentistry in her home country and had only come to the United States to see an uncle who was participating in a fellowship on campus.

“I spent time meeting members of the dental faculty and taking pictures of the campus,” Denny recalls, “but I never dreamed that I’d be back at UAB in less than a year.”

Fate intervened, however, when she met Gregory Denny, a local attorney, and soon found herself with a strong desire to relocate to Birmingham to complete her dental studies. The couple were married in October of 1994.

Today, Denny is a senior honor student with plans to become an orthodontist after she completes her studies in May. When she first transferred to UAB, however, graduation seemed a million years away. None of the credits she had already compiled in Brazil transferred to the United States, and Denny was informed that she would be required to start over again as a college student. Instead of being defeated, she got busy, completing her undergraduate degree in two years. She then took and passed the DAT and embarked once again on the study of dentistry.

On her arrival in the United States, Denny found herself faced with a major transition and much to learn in terms of American—and especially Southern—culture. In order to acclimate herself, she turned to television, watching the game show “Jeopardy” as often as twice a day to speed her acquisition of the language.

“I probably learned most of what I know about the English language, English literature, and other facts about the United States from watching ‘Jeopardy,’” she says with a laugh. “Say what you will, but it was very useful to me.”

An interesting result was her husband’s growing interest in game-show competition, which eventually resulted in his appearance on his wife’s favorite show. Winning a slot on “Jeopardy” only fueled Gregory Denny’s competitive fires, and he went on to appear on the wildly popular “Who Wants to Be a Millionaire?” during its inaugural week.

Apart from American culture in general, Denny also found university life to be very different from that of her home. In Brazil, she says, college is free for students who qualify academically. Her family questioned her decision to give up such an offer.

“They thought I was crazy when I told them I was moving here,” she says. “They couldn’t believe that I would give up a free education. But now they are all very happy.”

“UAB is very different from the schools in Brazil,” she says. “I feel like I am learning much more here than I did back home.”

By Cheryl Sloan Wray

FOR MANY DENTAL STUDENTS, the biggest challenge in training lies in mastering the eye-to-hand coordination the profession requires. It’s tough enough to begin with, but add a broken arm to the equation and you’ve got the makings of a pretty frustrating experience. Just ask students Sunil Philip and Chrisy Congo, who endured that very challenge during their preclinical training.

Although the two “fell” into their situations quite differently—Philip while playing football with his classmates and Congo on a Christmas ski trip—both

IF YOU NEED a walking definition of the word variety, just take a walk with Matt Brewer. In his third year of study in the School of Dentistry, he’s also preparing for his third career.

After graduating from Georgia Tech with a degree in electrical engineering in 1988, he took a job with a company known as Cross Systems before moving on to a position with AT&T. In 1990, however, his brother John approached him with an offer he simply couldn’t refuse. “John wanted us to form a partnership to start a chain of Steak-Out restaurants,” Brewer says, referring to the now-familiar steak delivery service that is based in Norcross, Georgia. “None were

By Cheryl Sloan Wray
Brewer worked with his brother for seven years, learning to manage cooks and drivers and building a successful franchise in the process. “It’s a very interesting line of work, but also very demanding,” he says, adding that his brother is still running the business. “At one time we were in charge of four locations in Birmingham plus another one in Florida.”

In 1995, right around the Thanksgiving holiday, everything changed for Brewer. He was involved in an automobile accident that required more than a year of recuperation and extensive physical rehabilitation. In light of that experience, he began considering entering the medical arena himself. “I had a lot of time to think and a lot of direct experience with medical procedures,” he says, “and so I figured that I had two choices. One was that I could become a plastic surgeon. But then I thought about how important it is for a person to be able to smile—and that’s why I chose dentistry.”

During his recuperation, Brewer received encouragement from a great many people, but particularly from his wife, Jacque Hancock, M.D.—a physician at the Shelby Baptist Medical Center—and close friend James Sanderson, Jr., D.M.D. “I credit my wife with leading me toward the medical field and my friend with guiding me into dentistry,” he says.

Because of the accident, Brewer approaches his study with a unique perspective. “There is a difference between the mechanics of medicine and the art of its practice, which Dr. Liu in particular helped me realize,” he says of his mentor Perng-Ru Liu, D.M.D. “All of our professors demonstrate excellence in their approach to each situation, and they expect the same thing from us.”

Brewer, who is a licensed pilot and currently lives with his wife on their 30-acre farm just outside of Birmingham, says he’s learned something important during each phase of his career: “Engineering taught me to think, and Steak-Out taught me to be an employer, but dentistry taught me the importance of a smile.”

By Rebecca McCracken

Injuries required corrective surgery on their right arms, and both students shared the same hard task of retaining their class standing during recovery.

Soon after Philip’s tough break, his freshman class began studying dental anatomy, and that forced him to create a technique of his own to complete the assigned tooth carvings. “Right after the accident I used a working splint with open ends so that my hand had support while my fingers were free to work,” he says. “Although it hurt pretty badly, I was able to get through the exercises.”

Congo acknowledges that the challenge of learning operative skills using her left hand alone was difficult. “It was very frustrating because some things you just can’t do with your left hand, or the assignment would require two hands, and my cast was too bulky to work with at times,” she says, adding that she was determined to stick with her studies. “I’d decided that I would just be a left-handed dentist, if that’s what it took.”

Philip and Congo agree that the experience helped them realize their passion for dentistry. “A lot of people said they could never work with their left hands like we did, but you can’t know what you’re capable of until you’re put into a situation like that,” says Congo.

Both students now recognize the value of healthy, agile hands—something they once took for granted. “You don’t really think about what your hands are there for and what they allow you to do until they are suddenly taken away from you,” says Philip.

Although the experience was highly stressful, both mentally and physically, Congo and Philip agree that, instead of hampering their progress, the challenge made them stronger. “I just had to take a deep breath when things got tough and remember that, eventually, this would all seem like a minor setback,” says Philip.

Congo adds that the encouragement she and Philip received from faculty and their fellow students was invaluable. “Everyone was constantly offering their help,” she says. “Our professors made time adjustments for our assignments, and our lab partners would even let us ‘borrow’ a hand when Sunil and I needed one. Support like that really helps.”

By Ella Robinson
Children have a way of following in their parents' footsteps. Whether it be law, business, or education, they are often drawn to professions they've "experienced" via observing their parents in those fields. Dentistry is certainly no exception, and the School of Dentistry has a long list of family names that have appeared once, twice, and even three times on the official rolls. What is it that leads students to follow their parents to UAB?

"I think we offer a learning experience that's truly unique," says Mary Lynne Capilouto, D.M.D., dean of the School of Dentistry at UAB. "Our location within the medical center provides our students with access to clinical and research opportunities that are quite remarkable. In fact, graduates often approach me at our alumni gatherings to say how much their time spent studying at UAB has meant to them throughout their careers. And if they share that with me, I'm sure they've said the same thing to their children."

Security Is Central

"I'm so glad you're here; now I'll never have to look for another dentist!" That's what patients have been saying to Paul G. Petznick, D.M.D., since he joined his father's well-established Birmingham practice in 1989. "Even though my father has no plans to retire, our patients still seem reassured to have someone else in the family here to treat them," says Paul of his father, George G. Petznick, D.M.D. "That reassurance of ongoing health care with someone they know plays a large part in patient satisfaction. It's like a security blanket."

Paul is actually the third generation in his family to practice dentistry, following in the footsteps of both his father and his great-grandfather. "My father died early," says George, "and my mother sent me to live with my grandfather, who was a general dentist in Pell City. He continued to practice until he was 93 years old, and some of his former patients still come here to see us for treatment."

And Paul wasn't the only one of George's children to follow him into dentistry. His sister, Charlotte, also graduated from UAB's School of Dentistry and practiced in California before moving to Massachusetts last year.

George points out that he didn't push either of his children to go into dentistry—or even to attend UAB, although he says "it is the best dental school in the country." Both Paul and Charlotte were working on undergraduate degrees in finance before they decided to pursue careers in dentistry, and George himself had to choose between becoming a pilot or a dentist.

Of Pilots and Prosthetics

After graduating from the U.S. Air Force Jet Fighter Pilot School in 1957, George Petznick was offered a job by Delta at the same time he learned that he'd been accepted by the School of Dentistry. Given his family's strong interest in health care—evidenced by the fact that his grandfather and two uncles were doctors—and his own experience working in a hospital during his teenage years, George chose dentistry. He managed to keep himself aloft, however, serving with the Air Force in Berlin and retiring only recently as a colonel in the Air National Guard, in which he was commander of the 160th Tactical Reconnaissance Squadron. Luckily, he found dentistry to be equally engaging.

"I had the opportunity to work in the dental lab while I was in school, and I became fascinated with prosthetic esthetics. I just like the whole process," he says, from deciding how to best treat a patient to the "artwork" involved in fashioning a bridge, implant, or some other device that will make a patient look and feel better. "The pleasure I get from helping my patients is extremely fulfilling."

George says that his son shares his interest in producing the best possible dental prosthetics. "It's fun to discuss cases and treatment
options with Paul,” he says, adding that a great deal of advance preparation went into paving the way for a smooth professional relationship. They renovated the office space, and they purchased new computers to streamline the business side of the practice.

The partners decided to make a smooth transition so that longtime patients would be comfortable with the new arrangement, first sending out a letter introducing Paul and emphasizing that George was not retiring. “Paul began backing me up at first, doing the final check after the hygienists had finished with their cleanings, and then gradually beginning to take on his own cases,” says George. “It wasn’t just about giving my patients a chance to get to know Paul, though, because he needed some time to learn about them, too.”

**Shared Philosophy**

Paul says that it’s especially important to stay focused on the professional aspects of the job when working with a member of your own family. “My father and I respect each other as professionals,” he says, “and one of the things that makes our partnership so successful is that we see eye-to-eye on how we want to provide treatment to our patients. Although we might disagree about the type of material to use in a prosthetic device sometimes, we share the same treatment philosophy—that we are here to care for our patients and to do all we can to help them.”

He also acknowledges that entering an established business allowed him to begin his career without the financial pressures associated with starting a new practice. “Dad is still the boss, which even he will admit that he really enjoys,” says Paul. “But that’s ideal for me, since I’d rather concentrate on working with patients than business at this point in my career.”

Having his son as his partner is helping to keep him young, George says, and even though they’ve stepped on each other’s toes at times, that’s to be expected in any business partnership.

“Not to sound sappy, but I’m really pleased that my children followed me into my chosen profession.”

**Orthodontics the Obvious Choice**

Lewis P. Chapman, D.M.D., is another UAB alum who is looking forward to practicing with his son in the very near future. William Chapman plans to join his father’s successful Montgomery orthodontics practice after his graduation from the School of Dentistry in the summer of 2002.

Like George Petznick, Lewis didn’t push his son—who is known as “Will”—into becoming a dentist or working alongside him. That choice was purely his son’s. “I’ve worked with my father over the summer a couple of times and I really enjoyed it,” says Will. “I also made a point of visiting other dentists to make sure not only that I wanted to be a dentist, but also that I wanted to specialize in orthodontics. I needed to make sure that this was my own decision and not just the easy or obvious choice.”

Both father and son agree that orthodontics is a “great profession.” They enjoy helping people, especially children. “We don’t give injections or administer drugs,” says Lewis, “and we’ve made a point of creating a light, happy atmosphere in our office so that our younger patients won’t be frightened.”

The fact that Chapman’s practice is such a success may have something to do with his “predentistry” days, when he earned both a bachelor’s degree from Birmingham-Southern and an MBA from the University of Alabama before entering the School of Dentistry at UAB.

“I’d always known that I wanted to own my own business. I just didn’t know what kind of business it would be,” he says. “For some reason, a number of my friends said that they thought I’d make a good dentist, and that started to make a great deal of sense.”

Will shares his father’s interest in both business and dentistry, also having earned an undergraduate degree from Birmingham-Southern before charting a course toward dentistry. He says the effect of his decision on family dynamics is also interesting. “My father and I really do enjoy talking about patients and different treatment strategies,” he says. “But we have to do it off to the side so that my two brothers don’t get jealous.”

**Sharing the Satisfaction**

Lewis Chapman says that he’s never doubted the wisdom of his decision to study dentistry at UAB. “I’ve been doing exactly what I wanted to do for the past 27 years,” he says, “and I’m looking forward to sharing that same satisfaction with Will.

“It’s especially nice to know this practice that I’ve created is going to stay right here in the family.”

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**KEEPING THE PEACE**

**Professional pointers from George and Paul Petznick, and Lewis and Will Chapman:**

- **As a parent, don’t push your son or daughter into entering your profession.** As a child, do some investigating and make sure this is the profession that you really want to pursue.
- **No matter who you’re entering into a practice with,** make sure that you share the same philosophy of treating patients.
- **In work situations with family members,** always treat each other as professional coworkers.
- **Discuss business options and agree on financial terms ahead of time.**
- **Plan ahead to make sure there is enough office space for everyone.**
- **Inform your patients and staff about your partnership so they won’t be caught off guard.**
- **Hand off patients gradually so they will remain confident that their needs will continue to be met in a satisfactory fashion.**
A Conversation with Michael Edwards

CONTACT—How did you end up in dentistry?
EDWARDS—I had a biology teacher in high school who was also my science teacher when I was in grammar school. Her name was Eugena Corina, and she was an incredibly stimulating person. She took three of us to Baptist Montclair Hospital during our sophomore year to watch an actual surgery being done, and so I was really charged up about medicine after that. But then I met a dentist along the way by the name of Clarence Mills, and he was such a fine individual that I really thought I’d like dentistry, and so that kind of changed my path a little.

CONTACT—What brought you to UAB?
EDWARDS—The fact that it has such a strong premed and predentistry program. I was originally enrolled at Birmingham-Southern, but then I transferred to UAB, where I majored in biology and chemistry. Once I had earned my bachelor’s degree, I immediately entered the School of Dentistry.

CONTACT—How did you end up practicing in Wedowee?
EDWARDS—When I was in dental school I had a professor named Dr. Wesley Young who was very involved with the Indian Health Service. During my junior year he mentioned an opportunity to serve an externship with the U.S. Public Health Service in St. Ignatius, Montana, which I applied for and then completed. Those four months were a terrific experience, and when I came back I had a whole new outlook on the importance of serving rural areas. It felt so good knowing that not only was I making a living, but I was also in a beautiful place where people in the community were so kind and appreciative. Then, coincidentally, Dr. David Greer, who was the dean of student affairs at that time, called me out in the hall one day and said, “There’s this little town in the eastern part of the state that’s been calling here every year for the past 10 years trying to get a dentist to come down there.” So my wife, Terri, and I drove to Wedowee one weekend and actually met with the mayor. In these small towns everybody turns out to meet you, and they were just so nice to us and so supportive that we thought we’d try it for a while. That was 21 years ago.

CONTACT—Tell me about the early years and about how your practice has evolved.
EDWARDS—We built a little office with the help of a local builder, and we were busy from the day we opened the doors. Since that time they built the dam and created Lake Wedowee, which turned the town into a resort community. Because of that we’ve grown to a staff of seven people and tripled the size of the office. Not only have we kept our original patients, but we also now have people from Atlanta and Carrollton and Newnan and the Anniston area—people from all over the country, in fact, even Minnesota and North Dakota. It’s really been an interesting journey for us.

CONTACT—Do you have a core philosophy in terms of running your practice?
EDWARDS—I’ve really been focused on educating people since I started this practice, because I knew that I was coming into an area that was dentally uneducated. The fact is, when people have to travel a long way for dental care, they tend not to do it. And so every time I’ve had the opportunity, I’ve tried to integrate patient education into my practice. We have a “TV network” in my office where I can show what’s called “casey” education—three-minute segments on every procedure in dentistry that we beam into the treatment rooms. This allows us to utilize “dead time” in order to educate patients when they’re waiting to get numb or waiting for their examination. We also have live, intra-oral cameras in every part of the office so they can see exactly what we see as we’re working. Patients can also visit our Web site to look at their post-treatment instructions, so everything is really linked together.

CONTACT—That sounds better than just handing them the latest issue of Field and Stream.
EDWARDS—That’s right. When you’re no longer facing the unknown, you’re a lot more relaxed in a dental office, and it also makes sedation less necessary.

CONTACT—So you actually find that educating your patients makes sedation less necessary?

EDWARDS—Absolutely. Even their blood pressure is lower than usual. I treat a lot of high-risk patients because I’ve been certified in intravenous sedation, and those patients are much calmer once we’ve explained the procedures and counseled them about how the procedures are performed.

CONTACT—As a private practitioner, what do you bring to your work in the dental school’s Comprehensive Care Program?

EDWARDS—I think the most important thing is that I help students work through the procedures they’ll face from a real-life perspective. Once they graduate they’ll be entering a consumer-driven, highly litigious society, and they’re interested in all aspects of patient management.

CONTACT—Would you describe your work in the program as a good experience to your colleagues in private practice?

EDWARDS—Oh, yes. This program is an entirely new concept, and dental schools around the nation are watching UAB very closely to see the results. It’s about pulling all of the specialties and all of the clinical requirements together under one clinic in order to give students a grasp of what private practice will be like once they graduate. Dean Capilouto has been incredibly innovative in putting this together. I think she is really on the cutting edge in coming up with this idea, and I hope that it continues to develop and grow.

CONTACT—What do you take away from your work at UAB that’s useful in your practice?

EDWARDS—I enjoy being exposed to all the great research that’s going on in the dental school—the fact that there is this river of information flowing through it. It’s also a pleasure working with the students. It keeps you enthusiastic about dentistry, because it’s easy to get in a rut no matter what you’re doing.

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As the Campaign for UAB progresses—and we continue working toward the university-wide goal of reaching $350 million in donations—we would like to remind dentistry supporters that there are as many ways to give as there are reasons to do so. Gifts made to the School of Dentistry will go entirely to the school, and the actual cost of a gift to the donor may be reduced by tax savings. Because aspects of some gifts are highly technical or subject to different tax consequences, we encourage our donors to consult with an attorney, accountant, or other qualified advisor. Here are the major types of contributions that can be made:

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To learn more about making a gift to the University of Alabama School of Dentistry, please contact Andrea Martin, director of development, at (205) 934-3601 or amartin@uab.edu.