

Dear Colleagues,

We're going green! Starting with the next issue of *Dentistry* magazine, you will have a choice of reading a printed copy of the publication or receiving an e-mail from us to advise that the new issue is available and may be read online. An insert on the adjacent page explains what you need to do if you prefer online reading. If you can't decide today, there's no rush. You can make the change at any time.

For now, I hope you enjoy this issue of the magazine. It's packed with information and updates from the School of Dentistry. Leading the way are brief stories regarding discoveries in HIV research, faculty who were honored by the Academic Health Center, and a workshop for future employers of dental therapists. Capping off this first section is exciting news of a \$1.9 million federal grant to help address dental workforce challenges.

Our first feature article describes a new clinic, a new program, and new partnerships at the School of Dentistry. You'll learn about the General Practice Residency Program at the University of Minnesota Medical Center, Fairview. Managed by University of Minnesota Physicians and academically supported by the School of Dentistry, the program provides training for five dental residents and care for thousands of medically and cognitively compromised patients.

Next, we share photos of our 2010 graduates and their families at our commencement ceremony in May, followed by a very special story about a lectureship honoring one of our former faculty—Dr. Daniel Waite. I feel fortunate to have been there to experience the 20th anniversary of the Daniel E. Waite Lectureship. It was an especially memorable day and I think you'll understand why when you read about the unique insights, experiences and comments of those who attended.

School news fills the entire middle section of this issue. There's no better place to start than with the story about Dr. Michael Rohrer, director of our Division of Oral and Maxillofacial Pathology, who was selected by our faculty to receive this year's Century Club Professor of the Year Award. Dr. Rohrer is a man of many talents and interests, and I was proud to present the award and honor him on behalf of the entire school.

The next section is my favorite to read—a list of faculty publications. Division by division, you'll see how faculty contributed to the knowledge base of the basic, clinical, and social and behavioral sciences, and public health. What a testimony to the diversity of scholarship and research being conducted at the School of Dentistry. Most important are not the numbers of articles published, but the journals in which they appear. The titles tell the story of the expansive research and scholarship of our faculty. We are truly fortunate for their contributions to our profession and our school as they bring the newest information to the classroom and work to discover solutions to problems and conditions that afflict patients and challenge clinicians.

Finally, alumni news follows with a thoughtful and encouraging letter from our school's alumni society president, Ms. Carol Dahlke. She sets the stage for the pages that follow with stories about two of our graduates who are true heroes, the accomplishments and contributions of alumni from all over the country, and the news and events in the lives of classmates.

We also share a calendar of events and a full page of continuing dental education courses. There is something for everyone.

Enjoy your reading, and don't forget to let us know if you're going "green."

All the very best,

PATRICK M. LLOYD

Dean

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PHOTO BY SCOTT STREBLE





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On the Cover: In the operating room at University of Minnesota Medical Center, Fairview. (L to R): GPR resident Meaghan Morrell-Huot, third-year dental student Andrew Nerness, and GPR Program Director Brian Singletary.

PHOTO BY SCOTT STREBLE

University of Minnesota

School of Dentistry **Driven to Discover**®

The University's mission, carried out on multiple campuses and throughout the state, is threefold: research and discovery, teaching and learning, and outreach and public service.

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NewsBites

Breakthrough in HIV Research

Researchers at the University of Minnesota School of Dentistry have identified two drugs that, when combined, may serve as an effective treatment for HIV.

The two drugs, decitabine and gemcitabine—both approved by the Food and Drug Administration (FDA) and currently



(L to R): Steven Patterson, Christine Clouser and Louis Mansky

used in pre-cancer and cancer therapy—were found to eliminate HIV infection in the mouse model by causing the virus to mutate itself to death, an outcome researchers dubbed "lethal mutagenesis."

The landmark finding in HIV research is the first time this novel approach has been used to attack the deadly virus without causing toxic side effects. Because decitabine and gemcitabine are already FDA approved, researchers believe that if their research is effective in large animal models, it will be much easier to expedite the development of the drugs for human use.

The study is a collaboration between molecular virologists Louis Mansky and Christine Clouser of the School of Dentistry's Institute for Molecular Virology, as well as medicinal chemist Steven Patterson from the University's Center for Drug Design. The findings were recently published online in the *Journal of Virology*.

"The findings provide hope that such an approach will someday help the 33 million people worldwide who currently live with HIV," Mansky said.

Lethal Mutagenesis

HIV mutates and evolves quickly. Rather than inhibiting virus growth and replication like current HIV drugs, this new drug combination forces the virus to do just the opposite—evolve beyond control, to the point of extinction.

"HIV's ability to mutate makes it difficult to target and treat," said Mansky. "We wanted to take advantage of this behavior by stimulating HIV's mutation rate, essentially using the virus as a weapon against itself."

Drug Repositioning

One way to decrease cost and expedite the development of novel drugs is by

the use of drug repositioning, the process of taking a drug that is used to treat one medical condition and using it to treat a different illness.

By examining drugs that are already FDA approved, the researchers hope to expedite the development of this drug combination because the safety profiles of the two drugs are known.

The researchers found that the drug concentrations needed to eliminate HIV infection cause no measureable cell toxicity and were effective against HIV cultures at concentrations well below the current levels used for cancer treatment.

The Path Ahead

Gemcitabine and decitabine have been administered in pre-clinical trials with mice. Initial findings confirm that the drugs are an effective antiviral therapy for HIV.

The researchers are now modifying the drugs to forms that can be absorbed by the human body when taken orally.

The study was funded by the Center for Drug Design, Academic Health Center, and the National Institutes of Health.



College students "try on" dentistry in a summer enrichment program.

Workshop for Future Employers of Dental Therapists

In 2008, the Minnesota legislature authorized the licensure of a new dental provider called a dental therapist, and dentists around the country are watching with interest as the School of Dentistry's first class of dental therapy students prepares to graduate in December 2011.

On June 11, the School of Dentistry held a workshop for future employers of dental therapists who wanted to learn more about the legislation and about how dental therapists can work as a member of the dental team. Participants reviewed the dental therapy legislation and scope of practice, learned about the School of Dentistry's education program, reviewed the components of a collaborative management agreement, and more.

The workshop will be updated and repeated in early 2011.

Judith Buchanan Honored



Associate Dean of Academic Affairs Judith Buchanan was one of four individuals inducted into the 2010 Academic Health Center (AHC) Academy of Excellence in the Scholarship

of Teaching and Learning.

The honor is the highest recognition of excellence in the University of Minnesota's AHC education mission. She receives the award in recognition of her contributions to teaching and student learning through innovation and creativity, her research in education, and for her international reputation for expertise in oral health education.

Dental School Awarded \$1.9 Million for New Dental Workforce Program

The School of Dentistry is one of three nationwide recipients of a \$1.9 million grant from the Health Careers Opportunity Program to help enhance access to dental care for underserved populations by increasing diversity in the dental workforce.

The competitive three-year grant, awarded to Naty Lopez, assistant dean of admissions and diversity, will fund the dental school's new *Building Bridges to a Career in Dentistry for Disadvantaged Students Program*. Lopez created the program as a way to increase the number of School of Dentistry graduates from disadvantaged backgrounds by establishing early contact with middle school and high school students who have expressed an interest in a health field and are participating in special health-related programs.

Historically, Minnesota has been one of the least diverse states in the nation. Recently, that profile has changed. The nonwhite population is projected to grow from 14% in 2005 to 25% in 2035. In addition, the state is currently home to a burgeoning immigrant population and has the largest communities of Somali, Hmong and Liberians in the U.S. Over half of the population growth in the state is minority and tends to be younger. These rapid changes have contributed to oral health care disparities and provide challenges to educate a more diverse healthcare workforce.

The school's new *Building Bridges* program will provide students from underrepresented communities with an opportunity to develop the skills needed to successfully compete, enter, and graduate from the University of Minnesota School of Dentistry. Says Lopez, "The goal is to begin early in

the education process to develop a larger and more competitive applicant pool and, once admitted, to retain students preparing for dental careers."

To accomplish this, the dental school is partnering with the Minneapolis Public Schools to help recruit student participants to the project, and the Minnesota Urban Area Health Education Center, which will connect students with community-based opportunities. Other partners include the University's College of Biological Sciences and College of Liberal Arts. Each will recruit faculty and teaching assistants to teach courses in the structured programs and help tailor the curriculum to the students' needs.

Lopez says the program will be demanding. "It features such initiatives as a 22-week Saturday Academy for 30 high school seniors and middle school students, a six-week summer program and a one year post baccalaureate program for college students, as well as a fourweek pre-matriculation program." Writing workshops, leadership seminars and a session with parents on college admissions will also be included. "We'll capitalize on the dental school's state-of-the-art simulation clinic where students will have hands-on opportunities to try their heart and hand at dentistry," says Lopez, "and they'll visit the school's communitybased outreach clinics."

The Building Bridges program was launched on September 1, 2010. The program grant is funded by the Bureau of Health Professions as a component of the Health Resources and Service Administration (HRSA), U.S. Department of Health and Human Services.

New Kid on the Block

A unique new clinic provides vital dental treatment for medically and cognitively compromised patients.

BY TERRI PETERSON SMITH



here's a lot of activity lately on the Riverside campus of the University of Minnesota Medical Center, including construction of the gleaming new Amplatz

Children's Hospital. But, another new kid has already arrived in the neighborhood. The Riverside Professional Building is home to the new University of Minnesota Physicians Dental Clinic, a neighbor whose arrival was eagerly anticipated.

That's because this is no ordinary dental clinic. The state-of-the-art facility with eight private, wheel chair accessible operatories is designed to serve patients who cannot receive dental treatment in a traditional dental office. That includes patients with hypertension or diabetes,

people with dental phobias, those who are immuno-compromised and people preparing for organ transplants. The clinic also serves people who have cognitive and physical disabilities that make dental care nearly impossible in other settings. For example, one operatory has a ceilingmounted lift to facilitate the transfer of patients from a wheelchair and a "hovercraft-style" dental chair that can be effortlessly repositioned to make

> "I wanted my advanced education experience to be geared toward how to manage medically compromised patients."

> > — ALEXANDRA NGUYEN

that transfer even easier. The clinic also features intraoral cameras and digital radiography in each operatory, paperless record-keeping, and a fully-equipped oral surgery suite. In addition, many patients are treated in the adjacent hospital operating room under general anesthesia.

The clinic has another important purpose: It is home to the University of Minnesota Medical Center, Fairview's General Practice Residency (GPR) Program, a one-year residency in which dentists learn all phases of ambulatory and inpatient dental care. "The purpose of the program," says its director, Brian Singletary, "is to strengthen the clinical and didactic backgrounds of each resident. Upon completing the one-year certificate

program, they are more prepared to care for medically compromised patients in their offices or to pursue a dental specialty. A hospital-based GPR is also necessary for hospital privileges."

The clinic is a collaboration between the University of Minnesota Medical Center, Fairview (UMMC), University of Minnesota Physicians (UMP), and the School of Dentistry. The medical center sponsors the residency program, UMP employees staff and manage the clinic, and the School of Dentistry provides the academic expertise and clinical supervision.

Brian Singletary arrived in Minnesota in 2008 to direct the new GPR Program and also holds a position as associate clinical professor in the School of Dentistry. Prior to that, he was chief of dental services at Yale New Haven Hospital, in New Haven, Connecticut. He spent his first year on the job overseeing the construction of the new clinic, recruiting staff, and negotiating off-service rotations, and he had input on the clinic's design and equipment selection. The UMP Dental Clinic opened its doors in May 2009, and welcomed its first crop of five residents starting in July 2009. Since then, the demand for the dental clinic's services has demonstrated the crying need among the patient population it serves. The clinic has treated 1,072 patients from 134 different cities in Minnesota and from 20 other states including Iowa, North Dakota, Wisconsin, and Illinois

Hospital-Based Training

The GPR Program now has its second class of five residents, three from the University of Minnesota, one from the University of Pittsburgh and one,





(Lower L): Alexandra Nguyen, GPR resident. (R): GPR resident Trevor Smith and Carmen Real, adjunct faculty.

Alexandra Nguyen, from the State University of New York at Buffalo. She says, "I chose to do a general practice residency because I wanted to further my education in the field of dentistry and I wanted my advanced education experience to be geared toward how to manage medically compromised patients. When I first shadowed the different GPR programs in the Twin Cities, I observed procedures and treatment rendered in a way that I hadn't encountered in dental school. I figured that a hospital-based GPR program would

be ideal for me. In the hospital setting, I hope to encounter challenging dental and medical situations."

The GPR Program includes both coursework and clinical experience. The program trains residents in all dental disciplines, with rotations scheduled in blocks. School of Dentistry adjunct and full-time faculty provide clinical instruction and seminars on topics ranging from dental implants and TMD/oral facial pain to geriatric dentistry and practice management. Residents also attend literature reviews,

treatment planning conferences, and case presentations.

The program not only extends and enhances what general practice residents have learned in dental school but also provides a strong dose of hospital-based medical experience. General practice residents join medical residents in their orientations and interdisciplinary training. They do a two-week rotation in internal medicine and a two-week rotation in emergency medicine together. In the ER, dental residents learn how to do triage and assess patients, Θ



(L to R): GPR resident Amy Stark and clinic staff members Lisa Nelson and Irena Kuzlak transfer a patient from a wheel chair to the dental chair.

including psycho-social assessments. One general practice resident is on call every week in the ER and last year there were 676 emergency room patient-contacts. While on call, they offer emergency dental care, including care for broken teeth and infections of dental origin. When treatment needs are more extensive, such as in cases of head and neck trauma. they work with oral and maxillofacial residents and faculty. GPR residents also spend three weeks on rotation with medical students in the anesthesia department learning intubation, intravenous drug delivery, and airway management. Says Singletary, "They learn to read medical charts, order labs, and to communicate with hospitalists and other medical and dental specialists. It's a very collaborative environment."

The experience isn't limited to dentists learning more about medicine. Mercedes Porter, who started work at Open Cities Health Clinic in St. Paul in September 2010, was a member of the first class to graduate from the GPR program. "Medical students learned from us, too," she says, "particularly about the importance of dental clearance exams for people who are having transplants or cancer treatments." Many medical procedures are more successful if dental needs are taken care of beforehand to eliminate the

possibility of infection, especially for patients with immune suppression or those who are having radiation treatment.

Porter offers the example of a patient who was going to have radiation to treat cancer of the tongue. "The doctor sent him for a dental exam and I saw him almost every day for a week before the radiation. We made fluoride trays for him to wear during the treatment because radiation destroys salivary gland tissue, reducing saliva flow, which in turn, can increase dental caries."

Meaghan Morrell-Huot, GPR resident.



Where It All Comes Together

The dental clinic's combination of highly trained dentists and sophisticated facilities developed specifically for those with special needs is a godsend for patients such as Seema Mody. Now 39, she had brain cancer as a child, which caused her to lose much of her cognition. In addition, she has epilepsy and experiences several seizures a day. She is fearful and uncooperative in the dental chair, so in a traditional office, dental cleanings are cursory at best and other procedures impossible. Her father, Sy Mody says that he used to take her to a private clinic that offered many of the same services that the UMP Dental Clinic offers, but it closed five or six years ago. That left his daughter with absolutely no local options for proper dental care. Says Mody, "We asked all over, but there was nothing available. It was very frustrating and we didn't know what we could do unless there was an emergency situation."

He continues, "Our family dentist told us about the clinic. He had gone to an open house when the clinic opened." So they arranged for her care at the UMP Clinic.

Not surprisingly, Seema's reaction to eye exams was exactly the same as her reaction to dental exams. Fortunately, they were able to schedule both dental care and an eye exam with an ophthalmologist from the University of Minnesota Eye Clinic at the same time in the operating room under general anesthesia.

"First they did a complete eye exam," says Mody. "Then Dr. Singletary came in and did a dental exam. He then removed four teeth, did periodontal work and cleaned Seema's teeth. It all took four hours, but they did everything that needed to be done. It was the equivalent of eight to ten dental visits.

"Now, we'll go back periodically," he says, adding, "I'm glad our dentist went to that open house."

Mercedes Porter says that it's gratifying to see medically compromised patients have their needs met in so thorough a fashion. "Sometimes patients with physical and mental disabilities are bounced around from clinic to clinic because they're hard to treat and the clinics may not be equipped to handle their special needs. But now, those who may have had little access to care can receive the very best. Now they have a dental home." •



Celebrating a Job Well Done and a Bright Future

tudents, families, friends, faculty and alumni gathered on Friday, May 14 to celebrate the 2010 School of Dentistry commencement ceremony. Held in Northrop Auditorium, this is the 121st year the school has gathered to honor the achievements of our graduates.

A highlight of this year's ceremony was the participation by graduates of the inaugural class in the Master of Dental Hygiene Program. Megan S. Dingfelder (dental hygiene class of 2010) and Megan L. Mulligan (doctor of dental surgery class of 2010) shared remarks on behalf of their graduating

classes, and Linda C. Niessen, DMD, MPH, MPP, vice president and chief clinical officer for Dentsply International, was the featured commencement speaker. Participating in the ceremony were 164 graduates from the dental hygiene, doctor of dental surgery, and advanced education programs.

Senior banquets were also held to present awards to graduating students and wish them well in their future careers. The doctor of dental surgery graduates celebrated with their families and friends on Thursday, May 13 at Nicollet Island Pavilion. Dental hygiene graduates celebrated their achievements July 29 at the St. Anthony Main Event Centre. •



History Meets the Future

The Daniel Waite Lectureship in Oral Surgery celebrates its 20th anniversary.

BY TERRI PETERSON SMITH

omeone just shot the president. They're bringing him here."
It was November 22, 1963. Robert Walker was an oral surgeon newly appointed to the staff at Parkland Memorial Hospital in Dallas, Texas. He and a few colleagues were having a leisurely lunch in the hospital cafeteria when someone rushed in and uttered those words that shook the country and the world. President John F. Kennedy had been shot as his motorcade traveled through downtown Dallas. Walker and his colleagues ran to the operating room to see if they could be of assistance.

The Kennedy assassination story has been told innumerable times since then. Yet, it's a story seldom told by anyone who was actually in the operating room that day. On March 27, attendees at the 20th Annual Daniel Waite Lectureship sat in rapt attention as Walker shared his intimate view of the historic event, including his encounter with the shocked and grieving first lady outside the operating room. "Dr. Walker's presentation was one of the most memorable events in my life," says second-year oral and maxillofacial surgery (OMS) resident Reda Taleb.

Walker was one of four speakers at the conference, which is sponsored annually by the University of Minnesota School of Dentistry's Division of Oral and Maxillofacial Surgery and the Minnesota Society of Oral and Maxillofacial Surgeons. About 120 oral and maxillofacial surgeons, residents from the University of Minnesota, Mayo Clinic, and Gundersen Lutheran Medical Center in LaCrosse, Wis., and several dental students attended the event, held at the University of Minnesota Center for Continuing Education.

"Dr. Walker is an icon of oral and maxillofacial surgery," says James Swift, professor and director of the School of Dentistry's Division of Oral and Maxillofacial Surgery in the Department of Developmental and Surgical Sciences. Walker now enjoys emeritus status at the University of Texas Southwestern Medical Center. His brush with one of the major events of the 20th Century served to blend a bit of history with a look at how far the profession has come since its beginnings. The 2010 Waite Lectureship



Dan Waite and Reda Taleb, University of Minnesota School of Dentistry OMS resident.

also offered a view of cutting edge research that currently influences patients and treatment, and a look to the future of oral and maxillofacial surgery.

Giants of the Field

To celebrate the twentieth anniversary of the lectureship, Daniel Waite himself welcomed the audience. Waite was professor and chairman of the Division of Oral Surgery for 17 years from 1967 until 1984 when he became professor and chairman of the Department of Oral and Maxillofacial Surgery and assistant dean

for hospital affairs at Baylor College of Dentistry in Dallas, Texas. When Waite first started in oral surgery in 1953, it was a new field. Looking back, he says, "I'm proudest of the immense research in oral surgery and its expansion to become part of the medical community."

A lectureship was a natural way for the School of Dentistry to honor Waite and his long career. Since its inception, according to Swift, "The Waite Lectureship has become one of the events that heightens the standards of oral and maxillofacial surgery practice in our state." Not many lectureships have such longevity, which Swift attributes to two things: "Speakers have come from all over the world. They're always giants in the field and great speakers on new research, the latest issues and challenges, and new scientific information that affects patient care." He also credits the collaborative "town and gown" relationship between the School of Dentistry and the Minnesota Society of Oral and Maxillofacial Surgeons, which has been a sponsor since the lectureship's third year.

This year, three other "giants" followed Walker's discussion. Eugene Keller, the former chair of the Division of Oral Diagnosis and Oral and Maxillofacial Surgery within the Department of Surgery at the Mayo Clinic where he is currently professor of surgery, spoke on the history and development of maxillary and mandibular discontinuity reconstruction. At the other end of the oral surgery timeline, Leon Assael spoke on the future of oral and maxillofacial surgery. He is professor and chair of oral and maxillofacial surgery and medical director of hospital dentistry at Oregon Health & Science University in Portland, Oregon, and was also editor-in-chief of the Journal of Oral and Maxillofacial Surgery.

The School of Dentistry's own David Basi, associate professor in the Division of Oral and Maxillofacial Surgery, presented a comprehensive review of bisphosphonates. This class of drugs is used to reduce the breakdown of bone, and in particular, to treat bone pain, prevent broken bones, and reduce fractures in patients with secondary bone cancer. However, bisphosphonate use can result in serious problems with bone healing, particularly after dental surgery.

Basi has been at the School of Dentistry since his graduation from the school's Oral and Maxillofacial Surgery Training Program in 2002. He has the unique distinction of being a participant in the NIH Dentist Scientist Award program which allowed him to earn his doctorate in basic science research while concurrently pursuing his specialty training in oral and maxillofacial surgery. Since then, Basi has become one of Minnesota's leading experts in wound healing in cases of bisphosphonaterelated osteonecrosis of the jaw and has conducted both clinical and basic science research in that area. In 2008, he was awarded a Research Support Grant from the American Association of Oral and Maxillofacial Surgery Foundation to investigate the effect of bisphosphonates on wound healing after tooth extraction. He also forged new collaborations with dental and medical specialists to investigate the efficacy of hyperbaric oxygen therapy in the treatment of bisphosphonate-related osteonecrosis of the jaw. At the Waite lecture, he shared his findings and observations based on his experience following 40 patients for four years.

Friday Residents' Event

For oral and maxillofacial surgery residents, the real excitement of the Waite Lectureship began the day before the "main event." They gathered that Friday at Coffman Memorial Union to give presentations on their own cases and research. The Waite Lectureship speakers and guests asked questions and offered insight regarding each presentation. Robert Bruce MacIntosh, the very first Waite Lecturer in 1991, was also on hand and participated in these meetings. He is a pioneer in using rib grafts for reconstruction of the face and is a former president of the American Board of Oral and Maxillofacial Surgery.



Conference attendees Blaine Milne and Will Farnsworth, University of Minnesota School of Dentistry OMS residents.

For fourth-year School of Dentistry OMS resident Andrew Pearson (D.D.S. '06), the chance to make a presentation on the topic of "Reconstruction of Mandibular Continuity Defects" was a highlight of the weekend. He says, "This was an invaluable opportunity to present a case in front of a group of people who have made significant contributions to the profession. It was especially valuable to hear their critique and viewpoints. Opportunities like this do not come often," he says. "There is nothing like being challenged by the giants."

Second-year resident Reda Taleb compared his experience at the Waite Lectureship to an artist being able to mingle with Leonardo da Vinci or Michelangelo. "These great surgeons were there to teach and help us grow. I took advantage of every opportunity to see what they thought, how they accomplished all the great things they did."

They impressed him not just for their surgical skills but also for their professional philosophy, with an emphasis not on financial gain but rather on the desire to contribute to humanity, science, and to provide service to the community. "They set an example for us to follow," he says. "It was also great to know that these great surgeons were humble, caring, and polite. They created the

perfect environment for me to ask questions and approach them about career advice and my education. I learned a lot about the prospect of working in academia rather than private practice. They did not hesitate to share their stories of success and failure and give me worthwhile advice."

Taleb also enjoyed the interaction with residents from other programs. "There is a great value in seeing what other programs do and how other residents approach surgical problems," he says. "Oral surgery is a small community, and developing connections with colleagues and exchanging ideas and great cases contributes immensely to my educational experience and personal development."

Says Andrew Pearson, "Historically, the Waite Lectureship is thought to be one of the best weekends of the year for the residents, as we have the luxury of having world class lecturers come right here to the University of Minnesota to teach. This is a truly unique experience and one that many other oral and maxillofacial surgery programs lack.

"I was given a great opportunity to see some of the leaders and founders of our profession. I will forever be grateful for this opportunity and thankful to my faculty. This lectureship is one of my favorite memories." •

SchoolNews

Michael Rohrer Receives Century Club Professor of the Year Award



Michael Rohrer

PHOTO BY TIM RUMMELHOF

Michael Rohrer, professor in the Department of Diagnostic and Biological Sciences and director of the Division of Oral and Maxillofacial Pathology, received the Century Club Professor of the Year Award before a ballroom filled with colleagues and alumni at the Dean's Recognition Reception on April 24, 2010. The award is the School of Dentistry's highest honor and is annually conferred upon one faculty member in recognition of outstanding contributions to the school's education, research and service mission.

Rohrer earned his doctor of dental surgery degree at the University of Michigan. He was in general practice for two years in the Army during the Vietnam War and in private practice for three years after that. He returned to the University of Michigan, earned a master's degree in oral pathology, and then taught at the University of Oklahoma for 22 years. He began his career at the University of Minnesota School of Dentistry in 2000 as director of the Division of Oral Pathology.

A man of many talents and interests, Rohrer has a passion for teaching. Described by his colleagues as a person of integrity, a great friend and colleague, and a leader with a commitment to the oral pathology profession and the development of junior faculty, his students know him best as an exceptional mentor and the consummate educator. He champions students with an unwavering dedication and, when asked, confesses, "If someone said I had to pick only one aspect of what I do exclusively, it

would be hard for me not to choose teaching." He is the recipient of numerous awards from professional organizations and societies, but cherishes most the four *Instructor of the Year Awards* he received from his Minnesota students and the several he received at the University of Oklahoma. His talents and influence as a teacher are routinely mentioned in the comments of students who refer to his teaching as "engaging" and "second to none."

His days, though, are varied. According to Rohrer, "even on my dullest day, I can pause and say, 'I must have the most interesting day of any dentist in the world because I've done so many different things." And indeed he has. In addition to lectures and seminars to predoctoral and grad students, Rohrer directs the School of Dentistry's Oral Pathology Laboratory, a diagnostic and consultation service in head and neck pathology that is one of the largest in the country, and the school's Hard Tissue Lab. Rohrer is, in fact, the state's senior pathologist—there are only three in Minnesota and all are at the School of Dentistry—and one of four oral pathologists in the northern tier of states between Wisconsin and Seattle and Portland. He spends many of his "interesting days" in interprofessional consultation with dentists, dermatologists and general pathologists.

He also has been instrumental in shaping the School of Dentistry. He's served as interim associate dean for academic affairs, as a member of the Strategic Planning Committee, and as chair of the Promotion and Tenure Committee.

He is a researcher, as well, with expertise and primary research interests in the histologic and histomophometric evaluation of bone, bone implants, bone grafting materials, and bone enhancing strategies. A sought-after lecturer in the area of clinical oral and maxillofacial pathology, he is a past-president of the American Board of Oral and Maxillofacial Pathology (2003-04) and completed seven years on that certifying board. He was president of the American Academy of Oral and Maxillofacial Pathology (2006) and has an active practice of surgical and clinical oral and maxillofacial pathology. His list of scholarly achievements includes patents, hundreds of thousands of dollars in grants from organizations, companies and public agencies, numerous book chapters, and some 108 published articles with more in some stage of development. Most impressive is the quality of journals in which he has published and the broad mix of co-authors with whom he works. With more accomplishments, interests and contributions than there is space to acknowledge, Michael Rohrer exemplifies the commitment to education, research and service mission that is the School of Dentistry. In appreciation, the School of Dentistry is proud to recognize his contributions and award him the 2010 Century Club Professor the Year Award. •









Research Publications



Sven-Ulrik Gorr

We recognize our colleagues for their contributions to the body of knowledge that forms the foundation for our profession.

The faculty, staff, students and research fellows of the School of Dentistry published 121 articles in scientific and professional journals between September 2009 and August 2010. These articles report on investigations—in areas of basic, clinical,

and social and behavioral sciences, and public health—by collaborating authors from all departments within the dental school and a variety of academic and scientific institutions.

This breadth of scholarship is a testament to the vitality of the School of Dentistry's research programs and the extensive collaborations occurring within the school and with scientists around the world.

The publication list is organized by department and division. Publications co-authored by collaborators in several divisions are acknowledged in each participating division.

Sincerely,

SVEN-ULRIK GORR, PH.D

DEPARTMENT OF DEVELOPMENTAL AND SURGICAL SCIENCES

Division of Oral and Maxillofacial Surgery

Adhikari, N., **D.L. Basi**, D. Townsend, M. Rusch, A. Mariash, S. Mullegama, A. Watson, J. Larson, S. Tan, B. Lerman, J.D. Esko, S.B. Selleck, and J.L. Hall. 2010. Heparan sulfate Ndst1 regulates vascular smooth muscle cell proliferation, vessel size and vascular remodeling. *J Mol Cell Cardiol*. 49:287-93.

Basi, D.L., S.W. Lee, S. Helman, A. Mariash, and S.A. Lumos. 2010. Accumulation of VEGFR2 in Zoledronic Acid Treated Endothelial Cells. *Molecular Medicine Reports*. 3:399-403.

Kademani, D., D. Junck, and R. Gopalakrishnan. 2009. The management of Ameloblastoma. *In* Oral and Maxillofacial Surgery Clinics. R.B.e.a. Bell, editor.

Le, A.D., J.S. Lee, T.B. Dodson, **D. Kademani**, S.E. Feinberg, V. Shetty, M.E. Wohlford, J.R. Zuniga, and L.L. Cunningham, Jr. 2010. Proceedings of the American Association of Oral and Maxillofacial Surgeons 2009 Research Summit. *J Oral Maxillofac Surg*. 68:1711-22.

Sabino, M., and D.R. Clohisy. 2009. Mechanisms and Management of Bone Cancer Pain. *In* Bone Cancer: Progression and Therapeutic Approaches. D. Heimann, editor. Academic Press.

Sabino, M.A. 2009. Chronic Facial Pain: Evaluation, Differential Diagnosis, and Management Strategies *In Oral & Maxillofacial Surgery. C. Fonseca*, editor. Elsevier. 961-978.

Seong, W.J., U.K. Kim, J.Q. Swift, Y.C. Heo, J.S. Hodges, and C.C. Ko. 2009. Elastic properties and apparent density of human edentulous maxilla and mandible. *Int J Oral Maxillofac Surg.* 38:1088-93.

Swift, J.Q. 2009. Oral and Maxillofacial Surgery: Management of the Alveolar Cleft and Jaw Discrepancies. *In Cleft Palate: Interdisciplinary Issues* and Treatment For Clinicians By Clinicians. K.M.L. Glaze, editor. ProEd Inc, Austin, TX. 573-600.

Division of Orthodontics

De Felippe, N.L., N. Bhushan, A.C. Da Silveira, G. Viana, and B. Smith. 2009. Long-term effects of orthodontic therapy on the maxillary dental arch and nasal cavity. *Am J Orthod Dentofacial Orthop*. 136:490 e1–8; discussion 490-1.

De Felippe, N.L., A.C. Da Silveira, G. Viana, and B. Smith. 2010. Influence of palatal expanders on oral comfort, speech, and mastication. *Am J Orthod Dentofacial Orthop.* 137:48-53.

Grigsby, I.F., L. Pham, R. Gopalakrishnan, L.M. Mansky, and K.C. Mansky. 2010a. Downregulation of Gnas, Got2 and Snord32a following tenofovir exposure of primary osteoclasts. *Biochem Biophys Res Commun.* 391-1324-9

Grigsby, I.F., L. Pham, L.M. Mansky, R. Gopalakrishnan, A.E. Carlson, and **K.C. Mansky**. 2010b. Tenofovir treatment of primary osteoblasts alters gene expression profiles: implications for bone mineral density loss. *Biochem Biophys Res Commun*. 394:48-53.

Grigsby, I.F., L. Pham, L.M. Mansky, R. Gopalakrishnan, and K.C. Mansky. 2010c. Tenofovir-associated bone density loss. *Ther Clin Risk Manag*. 6:41-7.

Grunheid, T., P. Brugman, A. Zentner, and G.E. Langenbach. 2010. Changes in rabbit jaw-muscle activity parameters in response to reduced masticatory load. *J Exp Biol.* 213:775-81.

Grunheid, T., G.E. Langenbach, J.A. Korfage, A. Zentner, and T.M. van Eijden. 2009. The adaptive response of jaw muscles to varying functional demands. *Eur J Orthod.* 31:596-612.

Horton, H.M., **J.R. Miller**, P.R. Gaillard, and **B.E. Larson**. 2009. Technique comparison for efficient orthodontic tooth measurements using digital models. *Angle Orthod*. 80:254-61.

Karras, J.C., J.R. Miller, J.S. Hodges, J.P. Beyer, and B.E. Larson. 2009. Effect of alendronate on orthodontic tooth movement in rats. *Am J Orthod Dentofacial* Orthop. 136:843-7.

Larson, B.E., M.M. Sievers, and C.C. Ko. 2010. Improved lateral cephalometric superimposition using an automated image fitting technique. *Angle Orthod.* 80:474-9

Schwarz, T., S. Murphy, C. Sohn, and K.C. Mansky. 2010a. C-TAK1 interacts with microphthalmia-associated transcription factor, Mitf, but not the related family member Tfe3. Biochem Biophys Res Commun. 394:890-5.

Schwarz, T., C. Sohn, B. Kaiser, E.D. Jensen, and K.C. Mansky. 2010b. The 19S proteasomal lid subunit POH1 enhances the transcriptional activation by Mitf in osteoclasts. *J Cell Biochem*. 109:967-74.

Sotillo Rodriguez, J.E., **K.C. Mansky**, E.D. Jensen, A.E. Carlson, T. Schwarz, L. Pham, B. MacKenzie, H. Prasad, M.D. Rohrer, A. Petryk, and R. Gopalakrishnan. 2009. Enhanced osteoclastogenesis causes osteopenia in twisted gastrulation-deficient mice through increased BMP signaling. *J Bone Miner Res.* 24:1917-26.

Willems, N.M., G.E. Langenbach, V. Everts, L. Mulder, T. Grunheid, R.A. Bank, A. Zentner, and T.M. van Eijden. 2010. Age-related changes in collagen properties and mineralization in cancellous and cortical bone in the porcine mandibular condyle. *Calcif Tissue Int*. 86:307-12.

Division of Pediatric Dentistry

Kaste, S.C., P. Goodman, W. Leisenring, M. Stovall, R.J. Hayashi, M. Yeazel, S. Beiraghi, M.M. Hudson, C.A. Sklar, L.L. Robison, and K.S. Baker. 2009. Impact of radiation and chemotherapy on risk of dental abnormalities: a report from the Childhood Cancer Survivor Study. *Cancer*. 115:5817-27.

Person, A.D., S. Beiraghi, C.M. Sieben, S. Hermanson, A.N. Neumann, M.E. Robu, J.R. Schleiffarth, C.J. Billington, Jr., H. van Bokhoven, J.M. Hoogeboom, J.F. Mazzeu, A. Petryk, L.A. Schimmenti, H.G. Brunner, S.C. Ekker, and J.L. Lohr. 2010. WNT5A mutations in patients with autosomal dominant Robinow syndrome. *Dev Dyn.* 239:327-37.

Program of Cleft Palate and Craniofacial Anomalies

Anderson, G.C., Y.M. Gonzalez, R. Ohrbach, E.L. Truelove, E. Sommers, J.O. Look, and E.L. Schiffman. 2010. The Research Diagnostic Criteria for Temporomandibular Disorders. VI: future directions. *J Orofac Pain*. 24:79-88.

Look, J.O., M.T. John, F. Tai, K.H. Huggins, P.A. Lenton, E.L. Truelove, R. Ohrbach, G.C. Anderson, and E.L. Schiffman. 2010. The Research Diagnostic Criteria For Temporomandibular Disorders. II: reliability of Axis I diagnoses and selected clinical measures. *J Orofac Pain*. 24:25-34.

Looman, W.S., **A.K. Thurmes**, and S.K. O'Conner-Von. 2010. Quality of life among children with velocardiofacial syndrome. *Cleft Palate Craniofac J.* 47:273-83.

Schiffman, E.L., R. Ohrbach, E.L. Truelove, F. Tai, G.C. Anderson, W. Pan, Y.M. Gonzalez, M.T. John, E. Sommers, T. List, A.M. Velly, W. Kang, and J.O. Look. 2010a. The Research Diagnostic Criteria for Temporomandibular Disorders. V: methods used to establish and validate revised Axis 1 diagnostic algorithms. *J Orofac Pain*. 24:63-78.

Schiffman, E.L., E.L. Truelove, R. Ohrbach, G.C. Anderson, M.T. John, T. List, and J.O. Look. 2010b. The Research Diagnostic Criteria for Temporomandibular Disorders. I: overview and methodology for assessment of validity. *J Orofac Pain*. 24:7-24.

Division of Periodontology

Durand, R., E.L. Gunselman, J.S. Hodges, A.J. Diangelis, and **B.S. Michalowicz.** 2009. A pilot study of the association between cariogenic oral bacteria and preterm birth. *Oral Dis.* 15:400-6.

Kawase, T., K. Okuda, H. Kogami, H. Nakayama, M. Nagata, T. Sato, **L.F. Wolff**, and H. Yoshie. 2010. Human periosteum-derived cells combined with superporous hydroxyapatite blocks used as an osteogenic bone substitute for periodontal regenerative therapy: an animal implantation study using nude mice. *J Periodontol*. 81:420-7.

Lockhart, P.B., M.T. Brennan, M. Thornhill, B.S. Michalowicz, J. Noll, F.K. Bahrani-Mougeot, and H.C. Sasser. 2009. Poor oral hygiene as a risk factor for infective endocarditis-related bacteremia. *J Am Dent Assoc.* 140:1238-44.

Michalowicz, B.S., M.J. Novak, J.S. Hodges, A. DiAngelis, W. Buchanan, P.N. Papapanou, D.A. Mitchell, J.E. Ferguson, V. Lupo, J. Bofill, S. Matseoane, M. Steffen, and J.L. Ebersole. 2009. Serum inflammatory mediators in pregnancy: changes after periodontal treatment and association with pregnancy outcomes. *J Periodontol*. 80:1731-41.

Nakayama, H., T. Kawase, H. Kogami, K. Okuda, H. Inoue, T. Oda, K. Hayama, M. Tsuchimochi, and **L.F. Wolff**. 2010. Evaluation by Bone scintigraphy of osteogenic activity of commercial bioceramics (porous beta-TCP and HAp particles) subcutaneously implanted in rats. *J Biomater Appl.* 24:751-68.

Pihlstrom, B.L. 2009. Highlights of America's scientific contributions to dentistry: 150 years and still counting. *J Am Dent Assoc.* 140 Suppl 1:4S-6S.

Seong, W.J., H.J. Conrad, and **J.E. Hinrichs**. 2009. Potential damage to bone-implant interface when measuring initial implant stability. *J Periodontol*. 80:1868-74.

DEPARTMENT OF DIAGNOSTIC & BIOLOGICAL SCIENCES

Neuroscience

Imbe, H., K. Okamoto, T. Donishi, E. Senba, and A. Kimura. 2010. Involvement of descending facilitation from the rostral ventromedial medulla in the enhancement of formalin-evoked nocifensive behavior following repeated forced swim stress. *Brain Res.* 1329:103-12.

Kennedy, W.R., G.F. Vanhove, S.P. Lu, J. Tobias, K.R. Bley, D. Walk, G. Wendelschafer-Crabb, **D.A. Simone**, and M.M. Selim. 2010. A randomized, controlled, open-label study of the long-term effects of NGX-4010, a high-concentration capsaicin patch, on epidermal nerve fiber density and sensory function in healthy volunteers. *J Pain*. 11:579-87.

Kohli, D.R., Y. Li, **S.G. Khasabov**, P. Gupta, L.J. Kehl, M.E. Ericson, J. Nguyen, V. Gupta, R.P. Hebbel, **D.A. Simone**, and K. Gupta. 2010. Pain-related behaviors and neurochemical alterations in mice expressing sickle hemoglobin: modulation by cannabinoids. *Blood*. 116:456-65.

Nixdorf, D.R., M.T. John, O. Schierz, **D.A. Bereiter**, and G. Hellekant. 2009. Self-reported severity of taste disturbances correlates with dysfunctional grade of TMD pain. *J Oral Rehabil*. 36:792-800.

Okamoto, K., A. Tashiro, Z. Chang, and D.A. Bereiter. 2010. Bright light activates a trigeminal nociceptive pathway. *Pain*. 149:235-42.

Schmidt, B.L., D.T. Hamamoto, **D.A. Simone**, and G.L. Wilcox. 2010. Mechanism of cancer pain. *Mol Interv.* 10:164-78.

Tashiro, A., K. Okamoto, and D.A. Bereiter. 2009a. Chronic inflammation and estradiol interact through MAPK activation to affect TMJ nociceptive processing by trigeminal caudalis neurons. *Neuroscience*. 164:1813-20.

Tashiro, A., K. Okamoto, and D.A. Bereiter. 2009b. NMDA receptor blockade reduces temporomandibular joint-evoked activity of trigeminal subnucleus caudalis neurons in an estrogen-dependent manner. *Neuroscience*. 164:1805-12.

Tashiro, A., K. Okamoto, Z. Chang, and D.A. Bereiter. 2010. Behavioral and neurophysiological correlates of nociception in an animal model of photokeratitis. *Neuroscience*. 169:455-62.

Oral Biology

Bando, M., Y. Hiroshima, M. Kataoka, M.C. Herzberg, K.F. Ross, Y. Shinohara, T. Yamamoto, T. Nagata, and J. Kido. 2010. Modulation of calprotectin in human keratinocytes by keratinocyte growth factor and interleukin-1alpha. *Immunol Cell Biol.* 88:328-33.

Giacaman, R.A., A.C. Asrani, **K.F. Ross**, and **M.C. Herzberg**. 2009. Cleavage of protease-activated receptors on an immortalized oral epithelial cell line by Porphyromonas gingivalis gingipains. *Microbiology*. 155:3238-46.

Hiroshima, Y., M. Bando, M. Kataoka, Y. Shinohara, M.C. Herzberg, K.F. Ross, Y. Inagaki, T. Nagata, and J. Kido. 2009. Shosaikoto increases calprotectin expression in human oral epithelial cells. *J Periodontal Res.* 45:79-86.

Kreth, J., H. Vu, Y. Zhang, and **M.C. Herzberg.** 2009. Characterization of hydrogen peroxide-induced DNA release by Streptococcus sanguinis and Streptococcus gordonii. *J Bacteriol.* 191:6281-91.

Rudney, J.D., H. Xie, N.L. Rhodus, F.G. Ondrey, and T.J. Griffin. 2010. A metaproteomic analysis of the human salivary microbiota by three-dimensional peptide fractionation and tandem mass spectrometry. *Mol Oral Microbiol.* 25:38-49.

Virology

Aathavan, K., A.T. Politzer, A. Kaplan, J.R. Moffitt, Y.R. Chemla, S. Grimes, P.J. Jardine, D.L. Anderson, and C. Bustamante. 2009. Substrate interactions and promiscuity in a viral DNA packaging motor. *Nature*. 461:669-73.

Dapp, M.J., C.L. Clouser, S. Patterson, and **L.M. Mansky**. 2009. 5-Azacytidine can induce lethal mutagenesis in human immunodeficiency virus type 1. *J Virol*. 83:11950-8.

Grigsby, I.F., L. Pham, R. Gopalakrishnan, L.M. Mansky, and K.C. Mansky. 2010a. Downregulation of Gnas, Got2 and Snord32a following tenofovir exposure of primary osteoclasts. *Biochem Biophys Res Commun*. 391:1324-9.

Grigsby, I.F., L. Pham, **L.M. Mansky**, R. Gopalakrishnan, A.E. Carlson, and K.C. Mansky. 2010b. Tenofovir treatment of primary osteoblasts alters gene expression profiles: implications for bone mineral density loss. *Biochem Biophys Res Commun.* 394:48-53.

Grigsby, I.F., L. Pham, **L.M. Mansky**, R. Gopalakrishnan, and K.C. Mansky. 2010c. Tenofovir-associated bone density loss. *Ther Clin Risk Manag*. 6:41-7.

Sadler, H.A., M.D. Stenglein, R.S. Harris, and L.M. Mansky. 2010. APOBEC3G Contributes to HIV-1 Variation Through Sublethal Mutagenesis. *J Virol*. Pg. 9.

Division of Oral Medicine and Diagnosis

Ahmad, M., and E. Freymiller. 2010. Cone beam computed tomography: evaluation of maxillofacial pathology. *J Calif Dent Assoc*. 38:41-7.

de Jong, E.P., H. Xie, G. Onsongo, M.D. Stone, X.B. Chen, J.A. Kooren, E.W. Refsland, R.J. Griffin, F.G. Ondrey, B. Wu, C.T. Le, N.L. Rhodus, J.V. Carlis, and T.J. Griffin. 2010. Quantitative proteomics reveals myosin and actin as promising saliva biomarkers for distinguishing pre-malignant and malignant oral lesions. *PLoS One.* 5:e11148.

Islam, M.S., Z. Ni, and D.S. Kaufman. 2010. Use of human embryonic stem cells to understand hematopoiesis and hematopoietic stem cell niche. *Curr Stem Cell Res Ther*. 5:245-50.

Rhodus, N.L. 2009. Oral cancer and precancer: improving outcomes. *Compend Contin Educ Dent*. 30:486-8, 490-4, 496-8 passim; quiz 504, 520.

Rhodus, N.L. 2010b. Management of oral complications from radiation and chemotherapy. *Northwest Dent.* 89:39-42.

Rudney, J.D., H. Xie, **N.L. Rhodus**, F.G. Ondrey, and T.J. Griffin. 2010. A metaproteomic analysis of the human salivary microbiota by three-dimensional peptide fractionation and tandem mass spectrometry. *Mol Oral Microbiol*. 25:38-49.

Schmidt, B.L., **D.T. Hamamoto**, D.A. Simone, and G.L. Wilcox. 2010. Mechanism of cancer pain. *Mol Interv*. 10:164-78.

Tao, X.A., J. Xia, X.B. Chen, H. Wang, Y.H. Dai, N.L. Rhodus, and B. Cheng. 2009. FOXP3 T regulatory cells in lesions of oral lichen planus correlated with disease activity. *Oral Dis.* 16:76-82.

Division of Oral Pathology

- Alonso, A.A., **I.G. Koutlas**, A.C. Leuthold, S.M. Lewis, and A.P. Georgopoulos. 2010. Cortical processing of facial tactile stimuli in temporomandibular disorder as revealed by magnetoencephalography. *Exp Brain Res.* 204:33-45.
- Dao, V., R. Renjen, **H.S. Prasad, M.D. Rohrer**, A.L. Maganzini, and R.A. Kraut. 2009. Cementum, pulp, periodontal ligament, and bone response after direct injury with orthodontic anchorage screws: a histomorphologic study in an animal model. *J Oral Maxillofac Surg.* 67:2440-5.
- Grigsby, I.F., L. Pham, **R. Gopalakrishnan**, L.M. Mansky, and K.C. Mansky. 2010a. Downregulation of Gnas, Got2 and Snord32a following tenofovir exposure of primary osteoclasts. *Biochem Biophys Res Commun*. 391:1324-9.
- Grigsby, I.F., L. Pham, L.M. Mansky, **R. Gopalakrishnan**, A.E. Carlson, and K.C. Mansky. 2010b. Tenofovir treatment of primary osteoblasts alters gene expression profiles: implications for bone mineral density loss. *Biochem Biophys Res Commun*. 394:48-53.
- Grigsby, I.F., L. Pham, L.M. Mansky, **R. Gopalakrishnan**, and K.C. Mansky. 2010c. Tenofovir-associated bone density loss. *Ther Clin Risk Manag*. 6:41-7.
- Hoeppner, L.H., F. Secreto, **E.D. Jensen**, X. Li, R.A. Kahler, and J.J. Westendorf. 2009. Runx2 and bone morphogenic protein 2 regulate the expression of an alternative Lef1 transcript during osteoblast maturation. *J Cell Physiol.* 221:480-9.
- Horowitz, R., M. Rohrer, H. Prasad, and Z. Mazor. 2009a. Enhancing extraction socket therapy. *The Journal of Implant and Advanced Clinical Dentistry*. 1:47-59.
- Horowitz, R.A., Z. Mazor, R.J. Miller, J. Krauser, H.S. Prasad, and M.D. Rohrer. 2009b. Clinical Evaluation of Alveolar Ridge Preservation with a ß-Tricalcium Phosphate Socket Graft. Compendium of continuing education in dentistry 30:588-603
- Houpis, C.H., K.I. Tosios, D. Papavasileiou, P.G. Christopoulos, **I.G. Koutlas**, A. Sklavounou, and C. Alexandridis. 2010. Parathyroid hormone-related peptide (PTHrP), parathyroid hormone/parathyroid hormone-related peptide receptor 1 (PTHR1), and MSX1 protein are expressed in central and peripheral giant cell granulomas of the jaws. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod*. 109:415-24.
- **Jensen, E.D., R. Gopalakrishnan**, and J.J. Westendorf. 2010a. Regulation of gene expression in osteoblasts. *Biofactors*. 36:25-32.
- Jensen, E.D., L. Pham, C.J. Billington, Jr., K. Espe, A.E. Carlson, J.J. Westendorf, A. Petryk, **R. Gopalakrishnan**, and K. Mansky. 2010b. Bone morphogenic protein 2 directly enhances differentiation of murine osteoclast precursors. *J Cell Biochem.* 109:672-82.
- Kademani, D., D. Junck, and **R. Gopalakrishnan**. 2009. The management of Ameloblastoma. *In* Oral and Maxillofacial Surgery Clinics. R.B.e.a. Bell, editor.
- Koutlas, I.G., and B.W. Scheithauer. 2010. Palisaded encapsulated ("solitary circumscribed") neuroma of the oral cavity: a review of 55 cases. Head Neck Pathol. 4:15-26.
- Koutlas, I.G., B.W. Scheithauer, and A.L. Folpe. 2010. Intraoral perineurioma, soft tissue type: report of five cases, including 3 intraosseous examples, and review of the literature. *Head Neck Pathol.* 4:113-20.
- Le, B., M.D. Rohrer, and H.S. Prasad. 2010. Screw "tent-pole" grafting technique for reconstruction of large vertical alveolar ridge defects using human mineralized allograft for implant site preparation. *J Oral Maxillofac Surg.* 68:428-35.

- Lee, C.Y., **M.D. Rohrer**, **H.S. Prasad**, J.D. Stover, and J.B. Suzuki. 2009. Sinus grafting with a natural fluorohydroxyapatite for immediate load: a study with histologic analysis and histomorphometry. *J Oral Implantol*. 35:164-75.
- Lee, J., J.F. Decker, G. Polimeni, C.A. Cortella, **M.D. Rohrer**, J.M. Wozney, J. Hall, C. Susin, and U.M. Wikesjo. 2010. Evaluation of implants coated with rhBMP-2 using two different coating strategies: a critical-size supraalveolar peri-implant defect study in dogs. *J Clin Periodontol*. 37:582-90.
- Lee, Y., **Rohrer, M.D.**, **Prasad, H.S.** 2009. Maxillary Sinus Grafting With A Natural Flourohydroxyapatite (C Graft) for Immediate Load: A Preliminary Study With Histologic Analysis and histomorphometry. *J Oral Implantology*. 35.
- Li, X., L.H. Hoeppner, **E.D. Jensen**, **R. Gopalakrishnan**, and J.J. Westendorf. 2009. Co-activator activator (CoAA) prevents the transcriptional activity of Runt domain transcription factors. *J Cell Biochem*. 108:378-87.
- Mazor, Z., R.A. Horowitz, M. Del Corso, **H.S. Prasad**, **M.D. Rohrer**, and D.M. Dohan Ehrenfest. 2009. Sinus floor augmentation with simultaneous implant placement using Choukroun's platelet-rich fibrin as the sole grafting material: a radiologic and histologic study at 6 months. *J Periodontol*. 80:2056-64.
- McAllister, B.S., K. Haghighat, H.S. Prasad, and M.D. Rohrer. 2010. Histologic Evaluation of Recombinant Human Platelet-Derived Growth Factor-BB After Use in Extraction Socket Defects: A Case Series. *Int J Periodontics Restorative Dent.* 30:365-73.
- Piperi, E.P., S.A. Rake, K.I. Tosios, E.E. Vasilopoulou, A.P. Rake, N.A. Sandler, T. Issacson, A. Sklavounou, and I.G. Koutlas. 2010. Mandibular melanotic neuroectodermal tumor of infancy treated conservatively with enucleation. *J Craniofac Surg.* 21:685-8.
- Polimeni, G., U.M. Wikesjo, C. Susin, M. Qahash, R.H. Shanaman, **H.S. Prasad, M.D. Rohrer**, and J. Hall. 2010. Alveolar ridge augmentation using implants coated with recombinant human growth/differentiation factor-5: histologic observations. *J Clin Periodontol*. 37:759-68.
- Renjen, R., A.L. Maganzini, M.D. Rohrer, H.S. Prasad, and R.A. Kraut. 2009. Root and pulp response after intentional injury from miniscrew placement. *Am J Orthod Dentofacial Orthop*. 136:708-14.
- Schwarz, T., C. Sohn, B. Kaiser, E.D. Jensen, and K.C. Mansky. 2010. The 19S proteasomal lid subunit POH1 enhances the transcriptional activation by Mitf in osteoclasts. *J Cell Biochem*. 109:967-74.
- Sotillo Rodriguez, J.E., K.C. Mansky, E.D. Jensen, A.E. Carlson, T. Schwarz, L. Pham, B. MacKenzie, H. Prasad, M.D. Rohrer, A. Petryk, and R. Gopalakrishnan. 2009. Enhanced osteoclastogenesis causes osteopenia in twisted gastrulation-deficient mice through increased BMP signaling. *J Bone Miner Res.* 24:1917-26.
- Sun, M., C. Forsman, C. Sergi, **R. Gopalakrishnan**, M.B. O'Connor, and A. Petryk. 2010. The expression of twisted gastrulation in postnatal mouse brain and functional implications. *Neuroscience*. 169:920-31.
- Susin, C., M. Qahash, G. Polimeni, P.H. Lu, **H.S. Prasad**, **M.D. Rohrer**, J. Hall, and U.M. Wikesjo. 2010. Alveolar ridge augmentation using implants coated with recombinant human bone morphogenetic protein-7 (rhBMP-7/rhOP-1): histological observations. *J Clin Periodontol*. 37:574-81.
- Tosios, K.I., I. Economou, N.N. Vasilopoulos, and I.G. Koutlas. 2010. Elastofibromatous changes and hyperelastosis of the oral mucosa. *Head Neck Pathol.* 4:31-6.

Division of TMD and Orofacial Pain

- Anderson, G.C., Y.M. Gonzalez, R. Ohrbach, E.L. Truelove, E. Sommers, J.O. Look, and E.L. Schiffman. 2010. The Research Diagnostic Criteria for Temporomandibular Disorders. VI: future directions. *J Orofac Pain*. 24:79-88.
- Fricton, J., J.O. Look, E. Wright, F.G. Alencar, Jr., H. Chen, M. Lang, W. Ouyang, and A.M. Velly. 2010a. Systematic Review and Meta-analysis of Randomized Controlled Trials Evaluating Intraoral Orthopedic Appliances for Temporomandibular Disorders. *J Orofac Pain*. 24:237-54.
- **Fricton, J.**, A. Velly, W. Ouyang, and **J.O. Look**. 2009. Does exercise therapy improve headache? A systematic review with meta-analysis. *Curr Pain Headache Rep*. 13:413-9.
- Fricton, J.R., W. Ouyang, D.R. Nixdorf, E.L. Schiffman, A.M. Velly, and J.O. Look. 2010b. Critical appraisal of methods used in randomized controlled trials of treatments for temporomandibular disorders. *J Orofac Pain.* 24:139-51.
- **John, M.T.** 2009. Patients treated by surgery for oral and oropharyngeal squamous cell carcinoma report similar appearance issues at follow-up as the general population. *J Evid Based Dent Pract.* 9:244-6.
- **John, M.T.** 2010a. Dentists should participate in the management of patients with obstructive sleep apnea and socially disruptive snoring-findings from a survey of Scottish sleep specialists. *J Evid Based Dent Pract*. 10:107-8.
- Larsson, P., M.T. John, K. Nilner, L. Bondemark, and T. List. 2010a. Development of an Orofacial Esthetic Scale in prosthodontic patients. Int J Prosthodont. 23:249-56.
- Larsson, P., M.T. John, K. Nilner, and T. List. 2010b. Reliability and validity of the Orofacial Esthetic Scale in prosthodontic patients. *Int J Prosthodont*. 23:257-62.
- Law, A.S., E.U. Durand, D.B. Rindal, and **D.R. Nixdorf**. 2010. "Doctor, why does my tooth still hurt?" *Northwest Dent.* 89:33-6.
- Look, J.O., M.T. John, F. Tai, K.H. Huggins, P.A. Lenton, E.L. Truelove, R. Ohrbach, G.C. Anderson, and E.L. Schiffman. 2010. The Research Diagnostic Criteria For Temporomandibular Disorders. II: reliability of Axis I diagnoses and selected clinical measures. *J Orofac Pain*. 24:25-34.
- **Nixdorf, D.R., M.T. John,** O. Schierz, D.A. Bereiter, and G. Hellekant. 2009. Self-reported severity of taste disturbances correlates with dysfunctional grade of TMD pain. *J Oral Rehabil*. 36:792-800.
- Nixdorf, D.R., M.T. John, M.M. Wall, J.R. Fricton, and E.L. Schiffman. 2010. Psychometric properties of the modified Symptom Severity Index (SSI). *J Oral Rehabil.* 37:11-20.
- **Nixdorf, D.R.**, E.J. Moana-Filho, A.S. Law, L.A. McGuire, J.S. Hodges, and **M.T. John**. 2010c. Frequency of persistent tooth pain after root canal therapy: a systematic review and meta-analysis. *J Endod*. 36:224-30.
- Ohrbach, R., J.A. Turner, J.J. Sherman, L.A. Mancl, E.L. Truelove, E.L. Schiffman, and S.F. Dworkin. 2010. The Research Diagnostic Criteria for Temporomandibular Disorders. IV: evaluation of psychometric properties of the Axis II measures. *J Orofac Pain*. 24:48-62.
- Reissmann, D.R., **M.T. John**, O. Schierz, and C. Hirsch. 2009. An abbreviated version of RDC/TMD. *Schmerz*. 23:618-27.
- Schiffman, E.L., R. Ohrbach, E.L. Truelove, F. Tai, G.C. Anderson, W. Pan, Y.M. Gonzalez, M.T. John, E. Sommers, T. List, A.M. Velly, W. Kang, and J.O. Look. 2010a. The Research Diagnostic Criteria for Temporomandibular Disorders. V: methods used to establish and validate revised Axis 1 diagnostic algorithms. *J Orofac Pain*. 24:63-78.

Schiffman, E.L., E.L. Truelove, R. Ohrbach, G.C. Anderson, M.T. John, T. List, and J.O. Look. 2010b. The Research Diagnostic Criteria for Temporomandibular Disorders. I: overview and methodology for assessment of validity. *J Orofac Pain*. 24:7-24.

Truelove, E., W. Pan, J.O. Look, L.A. Mancl, R.K. Ohrbach, A.M. Velly, K.H. Huggins, P. Lenton, and E.L. Schiffman. 2010. The Research Diagnostic Criteria for Temporomandibular Disorders. III: validity of Axis I diagnoses. *J Orofac Pain*. 24:35-47.

DEPARTMENT OF PRIMARY DENTAL CARE

Division of Community Oral Health Care

Bebeau, M.J. 2009. Enhancing professionalism using ethics education as part of a dental licensure board's disciplinary action. Part 2. Evidence of the process. *J Am Coll Dent.* 76:32-45.

Durand, R., E.L. Gunselman, J.S. Hodges, A.J. Diangelis, and B.S. Michalowicz. 2009. A pilot study of the association between cariogenic oral bacteria and preterm birth. *Oral Dis.* 15:400-6.

Lopez, N. 2010. What dental schools can learn from college experiences of American Indian students. *J Dent Educ.* 74:381-91.

Lopez, N., K. Self, and J. Karnitz. 2009. Developing a tool for systematic inclusion of non-academic factors in dental school admissions: towards building diversity in the dental workforce. *J Dent Educ.* 73:1347-52.

Michalowicz, B.S., M.J. Novak, J.S. Hodges, A. DiAngelis, W. Buchanan, P.N. Papapanou, D.A. Mitchell, J.E. Ferguson, V. Lupo, J. Bofill, S. Matseoane, M. Steffen, and J.L. Ebersole. 2009. Serum inflammatory mediators in pregnancy: changes after periodontal treatment and association with pregnancy outcomes. *J Periodontol*. 80:1731-41.

Wadenya, R.O., N. Lopez, and P. Berthold. 2010. Chewing stick use among African immigrants in West Philadelphia: implications for oral health providers. *Community Dent Health*. 27:60-4.

Division of Comprehensive Care

Lopez, N., K. Self, and J. Karnitz. 2009. Developing a tool for systematic inclusion of non-academic factors in dental school admissions: towards building diversity in the dental workforce. *J Dent Educ.* 73:1347-52

Okunseri C., D. Girgis, K. Self, S. Jackson, E.L. McGinley, and S.S. Tarima. 2010. Factors associated with reported needfor dental care among people who arehomeless using assistance programs. Spec Care Dentist. 30:146-150.

Self, K. 2009. Dental Therapy: An Opportunity for Change. *Northwest Dent.* 88:12,38.

Division of Dental Hygiene

Ahmann, L. 2010. Restorative Therapy Chapter. *In* Dental Hygiene Theory and Practice. M.a.W. Darby, M, editor. Saunders Elsevier Publisher, St Louis, MO.

Armstrong, B.L., M.L. Sensat, and J.L. Stoltenberg. 2010. Halitosis: a review of current literature. *J Dent Hyg.* 84:65-74.

Blue, C.M. 2009. Do dental hygiene students fit the learning profile of the millennial student? *J Dent Educ.* 73:1372-8.

DEPARTMENT OF RESTORATIVE SCIENCES

Division of Biomaterials

Kim, H.C., M.H. Lee, J. Yum, **A. Versluis**, C.J. Lee, and B.M. Kim. 2010. Potential relationship between design of nickel-titanium rotary instruments and vertical root fracture. *J Endod.* 36:1195-9.

Li, H., X. Yun, J. Li, L. Shi, A.S. Fok, M.J. Madden, and J.F. Labuz. 2009. Strengthening of a model composite restoration using shape optimization: a numerical and experimental study. *Dent Mater.* 26:126-34.

Mata, A., Y. Geng, K.J. Henrikson, **C. Aparicio**, S.R. Stock, R.L. Satcher, and S.I. Stupp. 2010. Bone regeneration mediated by biomimetic mineralization of a nanofiber matrix. *Biomaterials*. 31:6004-12.

Pegueroles, M., C. Aparicio, M. Bosio, E. Engel, F.J. Gil, J.A. Planell, and G. Altankov. 2009. Spatial organization of osteoblast fibronectin matrix on titanium surfaces: effects of roughness, chemical heterogeneity and surface energy. *Acta Biomater*. 6:291-301.

Santos, A.F., J.B. Meira, C.B. Tanaka, T.A. Xavier, R.Y. Ballester, R.G. Lima, C.S. Pfeifer, and **A. Versluis**. 2010. Can fiber posts increase root stresses and reduce fracture? *J Dent Res.* 89:587-91.

Zhang, S., M.A. Greenfield, A. Mata, L.C. Palmer, R. Bitton, J.R. Mantei, **C. Aparicio**, M.O. de la Cruz, and S.I. Stupp. 2010. A self-assembly pathway to aligned monodomain gels. *Nat Mater.* 9:594-601.

Division of Endodontics

Bowles, W.R., M. Drum, and P.D. Eleazer. 2010. Endodontic and implant algorithms. *Dent Clin North Am.* 54:401-13.

Degerness, R.A., and W.R. Bowles. 2010. Dimension, anatomy and morphology of the mesiobuccal root canal system in maxillary molars. *J Endod.* 36:985-9.

McCarthy, P.J., **S. McClanahan**, J. Hodges, and **W.R. Bowles**. 2010. Frequency of localization of the painful tooth by patients presenting for an endodontic emergency. *J Endod*. 36:801-5.

Newton, C.W., M.M. Hoen, H.E. Goodis, B.R. Johnson, and S.B. McClanahan. 2009. Identify and determine the metrics, hierarchy, and predictive value of all the parameters and/or methods used during endodontic diagnosis. *J Endod.* 35:1635-44.

Petrino, J.A., K.K. Boda, S. Shambarger, W.R. Bowles, and S.B. McClanahan. 2010. Challenges in regenerative endodontics: a case series. *J Endod.* 36:536-41.

Division of Operative Dentistry

Bernardon, J.K., N. Sartori, A. Ballarin, **J. Perdigão**, G.C. Lopes, and L.N. Baratieri. 2010. Clinical performance of vital bleaching techniques. *Oper Dent.* 35:3-10.

Hildebrandt, G., I. Lee, and J. Hodges. 2010. Oral mutans streptococci levels following use of a xylitol mouth rinse: a double-blind, randomized, controlled clinical trial. *Spec Care Dentist*. 30:53-8.

Larson, T.D. 2009a. Tooth wear: when to treat, why, and how. Part One. *Northwest Dent.* 88:31-8.

Larson, T.D. 2009b. Tooth wear: when to treat, why, and how. Part Two. *Northwest Dent.* 88:19-28.

Larson, T.D. 2010. Causes and treatment of root resorption. *Northwest Dent.* 89:45-7.

Li, H., X. Yun, J. Li, L. Shi, A.S. Fok, **M.J. Madden**, and J.F. Labuz. 2009. Strengthening of a model composite restoration using shape optimization: a numerical and experimental study. *Dent Mater.* 26:126-34.

Perdigão, J. 2010a. Dentin bonding-variables related to the clinical situation and the substrate treatment. *Dent Mater.* 26:e24-37.

Perdigão, **J.** 2010b. Dentin/enamel bonding. *J Esthet Restor Dent.* 22:82-5.

Tantbirojn, D., Rusin R. P., Bui H.T., Mitra S.B. 2009. In vitro dentin caries inhibition adjacent to a glass ionomer-composite sandwich restoration. *Quintessence Int.* 40:287-294.

Division of Prosthodontics

Adarve, R. 2010. Self-Guided Instructional Material: Full Crown. *In* MedEdPORTAL.

Conrad, H., J. Buchanan, and A. Welk. 2010. Advanced Simulation Clinic Orientation. *In* MedEdPORTAL.

Lloyd, P.M. 2010. The changing face of dentistry calls us all to get involved. *J Prosthodont*. 19:86.

Seong, W.J., H.J. Conrad, and J.E. Hinrichs. 2009a. Potential damage to bone-implant interface when measuring initial implant stability. *J Periodontol*. 80:1868-74.

Seong, W.J., U.K. Kim, J.Q. Swift, Y.C. Heo, J.S. Hodges, and C.C. Ko. 2009b. Elastic properties and apparent density of human edentulous maxilla and mandible. *Int J Oral Maxillofac Surg.* 38:1088-93.

Papers published in 2010 will compete for the *Paper of the Year* awards in the categories of:

- · Basic Science
- Clinical Science and
- Social and Behavioral Science & Public Health

The winning papers will be announced at Dean's Day 2011, which will be held at Coffman Union on March 4, 2011.

<u>AlumniNews</u>



A Letter from the President

Dear Colleagues,

I am deeply honored to be serving as president of the University of Minnesota School of Dentistry Alumni Society (SODAS). My first privileged duty as president was to participate in the Senior Recognition Banquet for the graduating class of 2010. It was rewarding to see the family members supporting their student in the height of their achievement along with the proud faculty that needed to bid adieu to another class of students. The next day was the long awaited graduation—the moment every student lives for and when it arrives, finds it hard to believe it is all over. Sitting on the stage of Northrop Auditorium overseeing the bright new group of dental and dental hygiene graduates was immensely emotional. I could feel the energy, the excitement of all the moments that led up to this very day and the bright futures that lie ahead for them.

These new graduates will all receive a year of complimentary membership in the University of Minnesota Alumni Association and SODAS. It is my hope that they will continue to support their alma mater and future colleagues and become paying members of the SODAS after the complimentary membership expires.

Goldy Gopher arrived at Majestic Oaks Golf Club in Ham Lake on Friday, July 29, with over one hundred golfers ready to play in the 16th Annual SODAS Golf Classic. We had a large number of students who chose to play golf with alumni, vendors and faculty. The students definitely generated enthusiasm throughout the day. I heard many positive comments made by golfers about what a great time they had.

I am very proud to say that I am an alumna of the University of Minnesota School of Dentistry. This great school has provided me with opportunities I had never thought possible. I ask each of you to think back to the very first time you held a mirror. Do you remember how strange that felt? But over time it started to feel natural and now if you don't pick up that mirror when you do an exam, it feels strange. It is like you are supposed to have it in your hand. Your role as alumni of the school is like picking up that mirror. At first becoming a supporting member of SODAS feels new and different as you might wonder what the alumni society can do for you. As you become more involved with the school through alumni membership, it feels natural. You discover the wonderful benefits of supporting the school and its efforts to enhance the student experience.

I urge you to consider becoming a life member of YOUR alumni society. Dentistry has enjoyed the highest percentage of life members throughout the University of Minnesota in the past. We are leaders in all aspects of the word, let's continue that tradition. Join your colleagues and become a supporting alumnus of the University of Minnesota School of Dentistry.

Have an amazing day!

CAROL DAHLKE, R.D.H., M.D.H. '84, '07, '10 President, School of Dentistry Alumni Society

www.dentistry.umn.edu/alumni

Heroes

In a world often enamored of the lives and star power of athletes, actors, and reality TV participants, we often fail to recognize the real heroes who walk among us more quietly. In August 2010, the world was transfixed by the stories of two such individuals. Both were School of Dentistry alums. Ryan Arnold ('03) and Tom Grams ('85) made international headlines because of the circumstances that led to their untimely deaths. They are heroes, though, because of how they chose to live their lives.

A Man of Uncommon Character

Ryan W. Arnold, a consummate family man, a man of great faith and an accomplished professional, passed away August 2 in Aurora, Colorado, just four days after having surgery to donate a portion of his liver to his brother Chad, who had an incurable liver disease. Ryan Arnold was 34 years old. Chad Arnold is recovering from the surgery.

"Ryan was a man of uncommon character. He was a man of many interests; he loved the outdoors, hunting, fishing...



Ryan W. Arnold

but his passion was people. He was in so many people's lives because he cared," said Rod Arnold, Ryan and Chad's brother. "We saw that beyond this one heroic act—He was the first to raise his hand [to be the donor] and you couldn't talk him out of it."

Deaths of living liver donors are rare—about 2 in 1000, according to the U.S. Department of Health and Human Services. All such transplants were

temporarily suspended at the University of Colorado Hospital where the surgery took place as the hospital investigates what caused Ryan's heart to stop two days after surgery.

Rod said his brother's commitment to family and humanity was driven by the strength of his faith in God. "He had a deep personal faith in Christ, and he lived that out," he said.

After earning his doctor of dental surgery degree, Ryan studied orthodontics at Vanderbilt University. While a student, he was the recipient of the ADA Student Clinician Program Award, the Howard Brayshaw Endowment Scholarship, the Hinman Research Award, and the International College of Dentists Achievement Award. He then joined his father Robert, also a School of Dentistry alum (class of '66) at Arnold Orthodontics, in Watertown, South Dakota. Ryan leaves behind his wife Shannon, three young sons, parents and siblings, and many friends.

Since Ryan passed away, his father has spent more time in the office again. "One thing my dad said was that all of these dentists and orthodontists have been coming in, and saying how impressed they were with Ryan as man and an orthodontist," Rod said.

Three days after Ryan's death, news came of another loss.

A Man of Uncommon Compassion

Tom L. Grams, age 51, was among 10 members of a 12-member volunteer medical aid team killed in Afghanistan on August 5. Most recently of Durango, Colorado, Grams retired from his dental practice in 2006 and worked as a volunteer dentist in Third World countries. He would travel on his own to remote



Tom L. Grams

areas or hook-up with a nonprofit organization. He began his work with Global Dental Relief in 2001. Katy Shaw, program administrator, says Grams hiked for three days to transport his equipment to a Himalayan monastery where he treated patients in a windowless room with a light bulb for illumination. He was the lead dentist on 28 trips her organization made to the Himalayan region. Shaw estimated Grams served 24,000 children.

But he had a special connection with Afghanistan. He ran a teaching and dental clinic in rural Afghanistan for Michigan-based Kids 4 Afghan Kids. According to program director Khris Nedam, "Dr. Tom made several trips—7 or 8—out to our village where he gained the respect and friendship of everyone." Grams worked at the village medical clinic, helped teach/mentor a local dentist, and started training some village students to be dental assistants. "He also looked at the whole village and wanted to help... so he organized and funded a solar project to get lighting in the schools and clinic, and helped investigate and tried to implement other cottage industries," says Nedam.

Grams left the village only when security for travel around the area became unstable. He worked for the last year to help establish a dental clinic in Kabul. His last minute decision to join a medical aid team sponsored by International Assistance Mission (IAM) on its visit to a remote village in Afghanistan ended tragically. The Taliban claimed credit for the attack, asserting that the workers were trying to convert Muslims to Christianity. Both the faith-based IAM and Gram's twin brother, Tim, who lives in Anchorage, Alaska, dispute that claim. Says Tim Grams, "My brother knew and respected the laws of the county. His only interest was to care for patients."

Class Notes

Please submit brief notices about milestone events and activities to: U of M School of Dentistry, Alumni Relations (attn: Annie Pearson), 515 Delaware St. S.E., 15-136 Moos Tower, Minneapolis, MN 55455 or penno008@umn.edu.

Dentistry is published two times a year. Deadlines for submission are: Spring issue: January 1; Fall issue: July 1. Please note: Dentistry cannot publish birth and marriage announcements.

1938

Leslie P. Christenson (D.D.S.), Phoenix, Ariz., died on January 6. Known as "Doc" or "L.P.", he began his career in Bovey, Minn., started a family, then joined the war effort in 1943 as a medical officer with the U.S. Navy and saw battle in the South Pacific. After World War II, he moved his family and dental practice to Phoenix. He was an avid fisherman and an enthusiastic amateur golfer who had a chance to play the game with some of golf's greats. With a focus on education, he served his community as a board member of several companies and organizations in Minnesota, as well as in Arizona.

1939

Alvin K. Mach (D.D.S.), Edina, died May 27 at age 93. He practiced dentistry in South Minneapolis and Richfield for over 40 years. He was an avid outdoorsman and played trumpet in several bands after his retirement.

1944

John R. Quast (D.D.S.), St. Paul, died July 30. He was 91 years old. Commissioned as a first lieutenant in the Dental Corps, Quast graduated from the U.S. Army Medical Field Service School in Pennsylvania and was attached to the Army Service Forces Training Center in Fort Lewis, Wash. He was discharged from the Army in 1946 and returned to St. Paul to practice dentistry with his father in the Lowry Medical Arts Building. He then joined the 109th Minnesota Air National Guard and served until the Korean War. He enjoyed hunting, fishing, photography, cars and cribbage. He retired from dentistry in 1985 and traveled the world with his wife, but more than anything enjoyed spending long spring and summer days at the Big Trout Lake family cabin.

1955

Peter S. Gregus (D.D.S.), Bosnia, died in September 2009 at age 92. Born and raised in Yugoslavia, he was in military service in 1941 when he was captured by the Germans and sent to a prisoner-of-war camp near Berlin where he was detained until after the war. He received his doctor of dental medicine degree

from the University of Bonn in Germany and came to the United States in 1951. He earned his D.D.S., was appointed a clinical instructor at the School of Dentistry in 1955, and was promoted to clinical assistant professor in 1960 and clinical associate professor in 1965, a position he continued into 1988.

1962

Frank J. Skoglund (D.D.S.), Inver Grove Heights, died February 4, 2010.

1970

J. Craig Baumgartner (D.D.S.), Portland, Ore., received the Louis I. Grossman Award during the American Association of Endodontists Annual Session in April in San Diego. The award recognizes an author for cumulative publication of significant research studies that have made an extraordinary contribution to endodontology. An AAE member since 1973, Baumgartner is a vital contributor to endodontic research and literature. He has published more than 100 research articles and 13 textbook chapters, and was co-editor of the sixth edition of Ingle's Endodontics and a past associate editor of the Journal of Endodontics. Baumgartner also served as president of the American Board of Endodontics. At the School of Dentistry, Oregon Health & Science University OHSU), he was professor, chair of the Department of Endodontology and Director of the Advanced Education Program in Endodontics.

1971

Howard W. Taylor (D.D.S.), St. Paul, was elected president of the St. Paul District Dental Society.

1975

Patrick J. Coyne (D.D.S.), Rapid City, N.D., died on June 10 at age 66. He began his career as an engineer and worked for five years in the refining and chemical industry. He then graduated from dental school and spent 35 years in private practice, two years in Huron and 33 years in Rapid City. He was a past-president of the Black Hills District Dental Society, the South Dakota Dental Association, and the State Board of Dentistry, and was a past-member of the board of directors for Delta Dental of South Dakota. In May, he was elected speaker of the house of the South Dakota Dental Association and received the association's 2010 Distinguished Service Award. The award recognizes extraordinary service and is based on contributions specific to the South Dakota Dental Association and organized dentistry.

1977

Dawn Acko-Loerch (D.D.S.), Hales Corners, Wisc., died suddenly on May 17 at age 59. Creative and talented, she will be remembered for her good sense of humor and

her skits for talent shows, her volunteer work in Honduras, and for being outspoken for her ideals.

1980

Eric M. Hansen (D.D.S.), Anchorage, Ala., died April 21. He was 57 years old. Though drafted to serve in Vietnam, he received a waiver to finish dental school and volunteered his services to the U.S. Army in postwar 1980. He and his wife Deb worked hard, traveled the world, and, in 1988, moved to Anchorage where Hansen practiced dentistry with his best friend from high school. He loved music, and he loved to share it with others. He also strived to provide a calm, comfortable atmosphere in the dental practice for his patients and those with whom he worked. He had love not just for people, but for animals and the environment that surrounded him, and a wonder of living in the Last Frontier.

1981

Steven A. Gorman (D.D.S.), North Oaks, achieved accredited status in the American Academy of Cosmetic Dentistry (AACD). He is one of eight dentists in Minnesota and one of 300 dentists internationally to earn this designation.

1982

Mary Krempasky Smith (D.D.S.), Spokane, Wash, is a candidate for president-elect of the American Dental Association. She is a past chair of the ADA Committee on Finance, a past vice chair of the ADA Electronic Health Record Workgroup, a member and vice chair of the ADA Council on Dental Benefits Programs, and a past president of the Washington State Dental Association and the Washington Academy of General Dentistry.

Daniel J. Goede (D.D.S.), Sioux Falls, S.D., was elected president of the South Dakota Dental Association.

1985

Thomas L. Grams (D.D.S.), Durango, Colo., was one of 10 members of a 12-member International Assistance Mission medical aid team ambushed and killed in Afghanistan's Badakhshan province. (See story on page 16.)

1988

Jan (Buley) Greening (D.D.S.), Litchfield, died August 19 of breast cancer. Originally from Hollandale and Waseca, Greening began her career as an X-ray technician before attending dental school. She lived life to its fullest, meeting its challenges head on with much determination. In addition to enjoying a rewarding career, loving family and large network of friends, she loved to

(continued on next page)

The School of Dentistry has Lost a Friend

Eric E. Stafne, School of Dentistry alumnus ('60) passed away August 25 at age 75. A faculty member of the School of Dentistry for 45 years, his enthusiasm for teaching



Eric E. Stafne

and his commitment to patients infused his life with energy, integrity and passion.

For the first 25 years of his career, Stafne divided his time between his

St. Paul periodontic practice and dental education. He was appointed a clinical assistant professor in periodontics in 1965, clinical associate professor in 1970, and clinical professor in 1982. During this time he taught both pre-doctoral and graduate students, served as one of four evaluators of clinical practice examinations for fourth-year students, and headed a sixmonth mini-residency for general practitioners (1987-88). In 1989, he retired from practice and began teaching full time.

Stafne credited his early years in dental practice as providing the insight for what became his overriding passion. Noticing

that some of his patients did not respond well to treatment, he began to suspect tobacco-use as a risk factor for periodontal disease and a contributor to poor treatment results. It was later that research confirmed his suspicions, but the early insight caused him to shift gears and focus the remainder of his career on treating patients with nicotine dependence. In 1995, he launched a program that provided individual counseling and personal long-term follow-up for those who wished to stop smoking. He also gave training workshops in tobacco control to Minnesota and national organizations and health care providers. He was involved with tobacco dependent treatment research and was a member of the Society for Research on Nicotine and Tobacco. He was a medical delegate to the American Cancer Society and both president of its Minnesota Division and a member of its Prevention and Tobacco Control Committee. He was also a member of the coordinating advisory committee of the Minnesota Coalition of ASSIST (American Stop Smoking Intervention Study).

Although retired from full-time teaching in 2000, he continued until June 2010 to direct the dental school's Tobacco Cessation Program and Counseling Clinic.

Stafne was a member of the American Dental Association and active at both the

state and district levels, and was a past president of the St. Paul District Dental Society. He was also a past president of the Minnesota Association of Periodontists, the Upper Midwest Section of the American College of Dentists, and the University of Minnesota School of Dentistry Century Club, and was a fellow in the American College of Dentists and the International College of Dentists.

Recognized for his contributions in all areas of his professional life, he was a two-time recipient of the School of Dentistry's Teacher of the Year Award, the recipient of the American Cancer Society National Division Award (1989), the St. Paul District Dental Society Outstanding Service Award (1995), the Michael J. Loupe Award for Excellence and Innovation in Dental Education (1996), the Distinguished Dental Alumnus Award (2000), the Lynn Smith Award for Excellence in Tobacco Control 2001, and the 2006 Minnesota Dental Association (MDA) Guest of Honor Award.

In accepting the MDA award, Stafne referred to himself as "a very lucky guy." Crediting his family and his profession as providing a loving and professionally rewarding life, he stated, "It simply doesn't get better than that." And indeed, it doesn't.

Class Notes (continued from page 17)

quilt, read, ski and snowmobile. She especially loved to take people on her boat, "The Queen Jan" on Lake Minnetonka and Kitchie Lake. She was an inspiration for all women living with breast cancer and inspired many by her strength, courage and love of life.

Shanthi Madireddi (D.D.S.), Los Altos Hills, Calif., is currently president-elect of the Northern California Academy of General Dentistry.

1997

James D. Nickman (D.D.S.), Lino Lakes, was elected the District IV trustee of the American Academy of Pediatric Dentistry. District IV represents pediatric dentistry in Manitoba, Ontario, Nebraska, Iowa, Minnesota, Ohio, Indiana, Michigan, North Dakota, South Dakota, Illinois, and Wisconsin. Nickman earned an M.S. in pediatric dentistry from the University of Minnesota in 1999.

2000

Joseph A. Kieffer (D.D.S.) Howard, S.D., received the 2010 Young Dentist Award from the South Dakota Dental Association.

Thomas W. Smyth (D.D.S.), New Prague, received the Golden Apple Award for New Dentist Leadership at the ADA 24th New Dentist Conference in San Diego, June 24-26.



Thomas W. Smyth

Smyth received the award in recognition of his work with the Minnesota Dental Association to create the Street of Realities annual dental tour, which provided dental students and new dentists with reallife perspective of

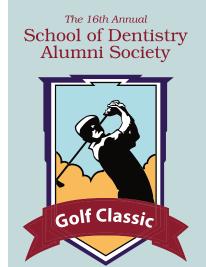
dental practices. He also played a major role in implementing the Transitions Seminars

Series, which provided dental students with the knowledge and skills necessary for identifying and evaluating practice opportunities.

Ryan Arnold (D.D.S.), Watertown, S.D., died Monday, August 2, of complications due to surgery. His death followed a successful liver transplant at the University of Colorado Hospital in Denver, in which Arnold donated a portion of his liver to his brother who was in final stages of liver failure and needed a transplant to survive. (See story on page 16.)

2010

Megan (Bowers) Mulligan (DDS), St. Louis Park, received the Student Leadership Award from the American College of Dentists.



Duffers and scratch golfers teed-off for a day of friendly rivalry at the 16th Annual Alumni Society Golf Classic, held July 30, 2010 at the Majestic Oaks Golf Course. Alumni, students and friends of the School of Dentistry enjoyed the camaraderie and fun golf event. A special thanks to committee co-chairs Carol Dahlke (D.H. '84) and Tom Inglis (D.D.S. '78) and to all of the golfers and corporate sponsors for making this a successful day. Proceeds support numerous Alumni Society projects, including scholarships.

Special congratulations to the following contest winners:

Special Awards:

Men's Long Drive: Chris Shearen Women's Long Drive: Laura Heck **Closest to the Pin:** Ryan Clouse **Longest Putt:** Paul Fiedler

Top Three Teams:

Team 1: Tim Emmer **Bob Marolt** Robert Proebstle Andrew Anderson

Team 2: Justin Wild Dan Ehrmanntraut David Gardner Chris Shearen

Team 3: Richard Battaglia Rob Donlin Robert Breitbach Scott Rench

The Finishing Touch: Alumni Sponsor Caps and Gowns for Grads

With an outpouring of generosity, alumni and friends made contributions to underwrite the cost of caps and gowns for the 2010 classes of dental and dental hygiene graduates. The effort, led by Clayton Sheppard ('85), this year's Cap and Gown Committee chair, has been a tradition for the SODAS board of directors

Dr. Charles H. Colby

Dr. Robert E. Conlin

Dr. Jerry J. Conroy

since 1997. A list of the 2010 donors to the Cap and Gown campaign is provided below. We send a sincere thank you to all contributors for their help in welcoming the graduating dentistry and dental hygiene classes to the profession.

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Dr. Lowell & Mrs.

Events Calendar

OCTOBER 2010

October 9–12 ADA Annual Meeting

Orlando, Fla.

Reception:
October 9
University of Minnesota
School of Dentistry
5:30 p.m. to 7:30 p.m.
Hilton Orlando Hotel

October 13 1919 Society Meeting

(for dental hygiene alumna)
7:00 p.m. to 9:00 p.m.
15-264 Moos Tower
School of Dentistry
Minneapolis Campus
Minneapolis, Minn.

For information, contact: Emily Best (612) 625-6811 emilyj@umn.edu

NOVEMBER 2010

November 3 Minnesota ASDA Vendor Fair

4:00 p.m. to 6:30 p.m. Radisson University Hotel University of Minnesota Minneapolis Campus Minneapolis, Minn.

For information, contact: Dawn Jensen (612) 767-8400 (800) 950-3368

JANUARY 2011

January 20 School of Dentistry Alumni Society (SODAS) Board Meeting

Dinner: 5:30 p.m. Meeting: 6:00 p.m.

March 2011

March 16–19 American Association for Dental Research

San Diego, CA

San Diego, CA

Reception:
March 18
University of Minnesota
School of Dentistry
Location and time
to be announced

For information, contact: Jane Franklin (612) 626-5731 fran0324@umn.edu

APRIL 2011

April 2 21st Annual Daniel E. Waite Lecture

Continuing Education and Conference Center University of Minnesota Saint Paul Campus Saint Paul, Minn.

For information, contact: Delores Mordorski (612) 624-9959 mordo001@umn.edu

April 13–16 American Association of Endodontists Annual Session

San Antonio Convention Center San Antonio, Tex.

Alumni Reception: To be announced

For annual session information: (312) 266-7255

April 28–30 Star of the North Meeting

Saint Paul RiverCentre Saint Paul, Minn.

For information: (612) 767-8400 (800) 950-3368

April 28 School of Dentistry Alumni Society Board Meeting 2:00 p.m. to 4:00 p.m.

April 29 Dean's Reception and Alumni Award Recognition

5:30 p.m. to 7:30 p.m. Saint Paul Hotel Saint Paul, Minn.

For information, contact: Debby Chapman (612) 626-4184 chapm156@umn.edu

MAY 2011

May 5–6 Montana Dental Association Annual Meeting

Red Lion Colonial Hotel Helena, Mont.

Alumni Reception: To be announced

For annual session information: (406) 443-2061

May 12–14 South Dakota Dental Association Annual Meeting

Sheraton & Convention Center Sioux Falls, S.D.

Alumni Reception: To be announced

For annual meeting information: (605) 224-9133

May 13–17 American Association of Orthodontists

McCormick Place Chicago, Ill.

Alumni Reception: To be announced

For annual session information: (800) 424-2841

May 26–29 American Academy of Pediatric Dentistry Annual Session

New York Marriott Marquis New York City, NY

Alumni Reception: May 28 Location and time to be announced

For annual session information: (312) 337-2169

For more information:

Except where noted, you can obtain further information on the events listed and/or request disability accommodations by contacting:

Annie Pearson

Director, Alumni Relations and Community Engagement (612) 625-6164 penno008@umn.edu

To stay informed about events at the University of Minnesota, see the Twin Cities Campus Event Calendar at www.events.tc.umn.edu

CDE Courses

10% Discount Available

School of Dentistry Alumni Society members are eligible for discounted continuing education. Members may receive a 10% discount for "lecture only" courses offered through the University of Minnesota School of Dentistry. (This discount applies to School of Dentistry Alumni Society members only and not their employees).

OCTOBER 2010

16th Annual Practice
Management Symposium
Looking Forward: You Can't
Change the Past, But You
Can Influence the Future
October 15

Nitrous Oxide/Oxygen Inhalation Sedation: A Training Program October 15-16

Health, Safety Protection & Infection Control in the Dental Office October 16

Dentistry's Role in Managing Headache & Sleep DisordersOctober 22

Occlusion & Function— Postgraduate Program in Esthetic Dentistry: Level III October 22-24

Office Oral Surgery: A Guided Experience for the General Dentist October 25-26

Recordkeeping Workshop for the Dental Team October 28

The Total Endodontic Experience: Mastering Competence, Consistency & Confidence October 29

Making Rotary Endodontics Safe, Simple and Efficient: A Mastery Level Workshop October 30

NOVEMBER 2010

Clinical Grand Rounds: Oral Pathology November 4 Esthetic Removable Partial Dentures—Postgraduate Program in Esthetic Dentistry: Level III November 4-6

Dental Management of Medically Compromised Patients November 5

Winter Dental Assistants' Seminar November 6

University Gold Orthodontic Study Club (Session Two) November 12

Postgraduate Program in Esthetic Dentistry: Level I– Lecture/Laboratory Series (Weekend One) November 12-14

Postgraduate Program in Esthetic Dentistry: Level II–The Patient Series (Weekend One) COURSE ONE: Advanced Diagnosis, Treatment Planning & Photography November 12-14

Fall Core Competency Day for the Dental Team November 19

Restorative Expanded Functions: An 80-Hour Training Program (Weekend Three) November 19-21

DECEMBER 2010

Clinical Grand Rounds: Prosthodontics and Implants December 2

Restorative Expanded Functions: An 80-Hour Training Program (Weekend Four) December 3-5 University Gold Orthodontic Study Club (Session Three) December 10

JANUARY 2011

Clinical Grand Rounds: Xerostomia & Oral Medicine January 6

Research Design: Postgraduate Program in Esthetic Dentistry: Level III January 7-8

Postgraduate Program in Esthetic Dentistry: Level I– Lecture/Laboratory Series (Weekend Two)

January 14-16

Postgraduate Program in Esthetic Dentistry: Level II-The Patient Series (Weekend Two) COURSE TWO: Advanced Composite Restorations January 14-16

Clinical Management of TMD in General Practice January 21

What's New in Dentistry January 28

Laser Applications for Orthodontists: A Hands-on Program January 28

Study Abroad 2011: St. Lucia January 29-February 5

FEBRUARY 2011

Clinical Grand Rounds: Geriatric Dentistry February 3

Managing Dental Trauma: A Clinical Guide for Success February 4

16th Annual Ski & Learn: Steamboat Springs, Colorado February 10-12

University Gold Orthodontic Study Club (Session Four) February 11

Postgraduate Program in Esthetic Dentistry: Level I– Lecture/Laboratory Series (Weekend Three) February 11-13 Postgraduate Program in Esthetic Dentistry:
Level II-The Patient Series (Weekend Three)
COURSE THREE: Advanced Patient Treatment (Session One)
February 11-13

Winter Dental Hygiene Seminar: Refining Your Patient Assessment Skills February 18

Miniresidency in Pediatric Dentistry February 18-20

Improving Your Radiographic Technique: A Hands-On Program February 26

MARCH 2011

Removal of Bond Material With Rotary Instrumentation: A Hands-On Program March 3

For more information:

For more information, to register for classes and/or to request disability accommodations, contact:

Continuing Dental Education

6-406 Moos HS Tower 515 Delaware Street SE University of Minnesota Minneapolis, MN 55455

Phone:

(612) 625-1418 or (800) 685-1418

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