

Advancing Oral Health.
Improving Lives.™

WRITE OF PASSAGE

UMSOD's Nasir Bashirelahi, PhD, shares his love of research with students.

REACHING OUT

Janet Yellowitz, DMD, MPH, discusses how teledentistry expands access to dental care.

HEAR THIS

Maureen L. Stone, PhD, steps into the role of president of the Acoustical Society of America.

Mdental

THE MAGAZINE OF THE UNIVERSITY OF MARYLAND SCHOOL OF DENTISTRY | SUMMER 2021

beyond BARRIERS

As the inaugural Frederick G. Smith, MS, DDS, & Venice K. Paterakis, DDS, Endowed Professor in Oral and Maxillofacial Surgery, Dr. Tao Lowe is crossing thresholds in more ways than one.





OfNote

Robert K. Ernst, PhD, Dr. Paul & Mrs. Jean Corcoran Endowed Professor, and professor and vice chair of the Department of Microbial Pathogenesis at the University of Maryland School of Dentistry, received a 2021 University System of Maryland (USM) Regents Faculty Award for Excellence in Scholarship, Research, or Creative Activity. The award, which carries a \$2,000 prize, is the highest honor presented by the board to exemplary faculty members.

Ernst, who is internationally recognized for his pioneering work in immunization therapy and diagnosis of microbial pathogens that holds the potential to save hundreds of thousands of lives annually, was one of 16 faculty members honored across USM.

He and his colleagues created a startup company, Pataigin, to commercialize the technology that identifies infections by developing a “barcode” for each pathogen strain. He also is helping to develop the next generation of professionals, having successfully mentored and trained graduate students and postdoctoral fellows.

Ernst also has been recognized for his work by the University of Maryland, Baltimore, winning its 2017 Researcher of the Year and 2019 Entrepreneur of the Year awards. **MD**

— UMB STAFF

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Just think what a difference one year has made.

When last summer's issue of *Mdental* came out, we had just implemented new infection control protocols in the clinics and were making the switch to online education to ensure the safety of our patients, faculty, staff, and students.

I was extremely proud of the adaptability of our faculty and staff and the innovative solutions they implemented to ensure the continuity of our academic and research programs. Despite an unprecedented pandemic, at the University of Maryland School of Dentistry (UMSOD), we've remained steadfast in our mission of advancing oral health and improving lives.

This issue highlights many of our successes. You'll read about Tao Lowe, PhD, the named recipient of the Frederick G. Smith, MS, DDS, & Venice K. Paterakis, DDS, Endowed Professorship in Oral and Maxillofacial Surgery — UMSOD's first endowed professorship. Dr. Lowe's groundbreaking research focuses on the design and development of novel, multifunctional biomaterials for targeted and sustained drug, gene, and stem cell delivery for tissue engineering and disease therapy. Her work includes explorations of novel therapeutic strategies for the treatment of cancers and the regeneration of bone, cartilage, and other tissues.

This issue also details the investigations of Man-Kyo Chung, DMD, PhD, recipient of a National Institute of Dental and Craniofacial Research Sustaining Outstanding Achievement in Research award, who focuses on how capsaicin, found in chili peppers, can help alleviate chronic oral pain.

You also will read news about the recently formed Inclusive Excellence and Equity Committee. Consisting of faculty, staff, and students, this group is charged with helping our school make diversity and equity part of everything we do from recruiting new students and faculty to designing our curriculum. Described by the Association of American Colleges & Universities as an active process through which institutions achieve excellence and equity, the concept of "inclusive excellence" is rooted in the recognition that diversity forms the cornerstone of excellence. I am greatly appreciative of the students, staff, and faculty members serving on this important committee.

Additionally, I am pleased to announce the Dean's Scholarship for Leadership & Excellence. Designed to honor students demonstrating exceptional academic achievement and leadership, this scholarship was made possible through our alumni.

Thanks to the remarkable work of our faculty, staff, students, and alumni, I am confident that UMSOD is emerging from the challenges of the past year as a stronger institution.

Best regards,

Mark A. Reynolds, DDS '86, PhD
Dean and Professor

Mdental

ON THE COVER

Tao Lowe, PhD, the inaugural Frederick G. Smith, MS, DDS, & Venice K. Paterakis, DDS, Endowed Professor in Oral and Maxillofacial Surgery, is developing ways of delivering drug therapies across the human body's least-permeable barriers.

Photo by Matthew D'Agostino / UMB

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OnTheCusp



Zahra Nabeel

Thank you to my family and friends for all your love and support!



LEFT TO RIGHT:

Slides depicting students wearing their new coats formed part of the virtual White Coat Ceremony; notes containing words of advice and wisdom from UMSOD alumni were tucked in the pockets.

Keynote speaker Andrew Swiatowicz

Marking a Milestone

At White Coat Ceremony, UMSOD Celebrates Students' Transition from Class to Clinic

BY HOLLY SELBY

“[Dental school] is not supposed to be easy, but you are doing it ... and you are doing it during a pandemic! I say that makes you somewhat invincible!” wrote Mary M. Ziomek, DDS '85. Her remark was one of many congratulatory wishes sent via email by University of Maryland School of Dentistry (UMSOD) alumni to the members of the Bachelor of Science Dental Hygiene Class of 2021 and the Doctor of Dental Surgery Class of 2022 as part of the White Coat Ceremony.

Held virtually Dec. 4, the annual event, during which the students typically are presented with white coats, marks their transition from classroom to clinical training. This year, however, the students received their coats in preparation for the virtual ceremony.

Upon receiving the coats, “you become part of the rich tradition that defines the University of Maryland School of Dentistry, the world’s first dental college. With this ceremony, you become the newest members of our profession,” Mark A. Reynolds, DDS '86, PhD, UMSOD dean and professor, told the students.

In the face of the COVID-19 pandemic, the students were part of a profession-wide effort to adapt and swiftly create new protocols for patient care, said keynote speaker Andrew Swiatowicz, DDS '10, FAGD. Because of this, he added, “you all are better prepared than the rest of us to thrive” in future circumstances that may demand flexibility and nimbleness.

A message was tucked inside the pocket of each white coat. Called “Words of Wisdom,” each note was written by a UMSOD alumnus and bore a message of advice, encouragement, or congratulation. As the ceremony progressed, other alumni appeared in prerecorded videos to welcome the students to the oral health profession. Reynolds also thanked the more than 50 alumni, faculty, staff, and family members who, this year for the first time, offered a gift of sponsorship to the ceremony. He urged the students to seek opportunities to get to know the alumni: “They are truly dedicated to our school, to you, and to our profession.” **MD**

Celebrating the Class of 2021

In Person and Online

BY HOLLY SELBY

Congratulating the University of Maryland School of Dentistry (UMSOD) Class of 2021 for its clear “ability to swiftly and gracefully adapt and innovate,” Mark A. Reynolds, DDS '86, PhD, UMSOD dean and professor, said that the school’s newest graduates possess “the qualities of leadership and professionalism that will distinguish them throughout their careers.”

Reynolds’ remarks came during UMSOD’s Honors Convocation, a ceremony held annually to recognize the “hard work, personal and financial investment, and commitment that each of you, our graduates, has dedicated to the oral health profession.”

The convocation, which this year was an online ceremony, was one of many graduation-related events held during the week of May 17-21 — either as virtual or small, in-person events that reflected new protocols imposed by the COVID-19 pandemic. The festivities included a virtual Evening with the Stars awards ceremony, an in-person Military Commissioning Ceremony at Walter Reed National Military Medical Center in Bethesda, Md., and nine small, in-person hooding or pinning ceremonies.

To read more about UMSOD’s graduation festivities, visit www.dental.umaryland.edu/news/2021graduation.

TOP TO BOTTOM: Mark A. Reynolds, UMSOD dean and professor, congratulates Meredith Brooke Powell, DDS '21, at one of nine small, in-person ceremonies held May 20-21.

Kristen Grabowski, DDS '21, and other graduates recite the convocation oath, a formal affirmation of their obligations to patients, community, and profession.

From left, DDS '21 graduates Ian Peters, Yaron Rubin, Benjamin Horn, Christopher Vieira, and Caitlin Montgomery participate in a Military Commissioning Ceremony on May 21 at Walter Reed National Military Medical Center.

Jonathan Jackson, DDS '21, receives his hood.



Photos by Matthew D'Agostino / UMB



First Class Graduates from UMSOD's Implantology Continuum

BY HOLLY SELBY

Members of the inaugural class of the University of Maryland School of Dentistry's (UMSOD) Implantology Continuum received certificates and congratulatory remarks from Mark A. Reynolds, DDS '86, PhD, UMSOD dean and professor, in a March 8 ceremony.

The three graduates successfully completed the two-year continuing education course that combines a hands-on, live-patient program with a robust, didactic curriculum. (Since in-person classes were switched temporarily to Webex due to the COVID-19 pandemic, the course was extended so participants could take full advantage of hands-on sessions.)

"The most significant strength of this program is the hands-on training," says Ashley Brown, DDS, who practices at Natural Dentist Associates in North Bethesda, Md. "We learned treatment planning, atraumatic extractions/ bone grafting techniques, implant placement, and prosthetics. Being provided patients was an added bonus."

"I see many patients who need implants, and being able to offer these procedures is huge. It's a win-win: I can provide another service and the patient doesn't have to go to a different location."

— ASHLEY BROWN, DDS

TOP, LEFT TO RIGHT: Herbert Mendelson, director, Implantology Continuum; graduates Mansi Oza, DMD, Ashley Brown, DDS, and Priya Abraham, DDS; Roghieh Atapour, DDS, clinical instructor in the Department of General Dentistry; Mark A. Reynolds, UMSOD dean and professor

BOTTOM: Hands-on experience forms a cornerstone of the Implantology Continuum.

Photo by Matthew D'Agostino / UMB



Before enrolling, Brown was looking for a professional challenge, she says. Now she is able to offer a new service. "I see many patients who need implants, and being able to offer these procedures is huge. It's a win-win: I can provide another service and the patient doesn't have to go to a different location."

Enabling participants to hone skills and become comfortable as they properly select cases, perform numerous bone grafting procedures, and place and restore dental implants is the goal, says Herbert Mendelson, DDS, clinical instructor in the Department of General Dentistry and director of the Implantology Continuum.

The course also offers broader benefits, he says. "After two years assessing patients and proposing treatment plans to our knowledgeable faculty, participants begin to approach their patients' dental needs with a critical and systematic approach, which is helpful in every aspect of their practice."

Interest in the continuum has been high. In the two years since it was launched, enrollment has steadily increased; 11 dentists are currently enrolled, and applications are being accepted for the next continuum, which begins in August.

"This is a program for dentists who are looking to improve themselves and their practices in a never-ending goal to make life better for their patients, staff, and themselves," Mendelson says. **MD**

For information, please visit www.dental.umaryland.edu/implantology-continuum-course.

New Committee's Mission:

Foster and Promote Inclusive Excellence and Equity

BY HOLLY SELBY

The University of Maryland School of Dentistry (UMSOD) has launched the Inclusive Excellence and Equity Committee, a new standing workgroup charged with helping the school foster a culture of diversity and inclusion. The committee's 13 inaugural members reflect the UMSOD community with representatives drawn from the faculty, staff, and student bodies who will serve one-year, renewable terms and meet at least four times a year.

The concept of inclusive excellence is a guiding principal of the Association of American Colleges & Universities, a national institution dedicated to advancing education, that refers to the strategic pursuit of diversity at all levels of an institution — from leadership and decision-making to academics and day-to-day operations. It represents a way of viewing inclusiveness as fundamental to an institution's success.



As described by educator Damon A. Williams, PhD, author of the 2013 book, "Strategic Diversity Leadership: Activating Change and Transformation in Higher Education," and a leading expert on inclusiveness: "Inclusiveness and excellence are conceptualized as one and the same — to practice inclusiveness is to practice excellence."

"I am grateful to our UMSOD employees and students who are serving on the committee for their commitment to working

together to strengthen a diverse and equitable school environment consistent with our core values," said Mark A. Reynolds, DDS '86, PhD, dean and professor.

"Together, they will help foster a UMSOD environment that welcomes and embraces each and every member of our community. I would also like to thank other members of our UMSOD community for their readiness to serve and support this important pursuit of inclusive excellence and equity." **MD**

Confronting Biases and Stereotypes



Russell McClain, JD, professor, associate dean for diversity and inclusion, and director of the Academic

Achievement Program at the University of Maryland Francis King Carey School

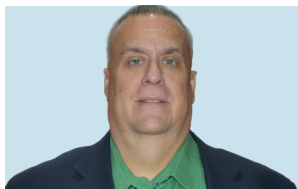
of Law, led a virtual discussion Feb. 25 titled "Invisible Influences: Bias and Stereotypes in Higher Education."

A prolific author, McClain's research focuses on psychological factors that affect academic performance. The session, co-sponsored by the Inclusive Excellence and Equity Committee at the University

of Maryland School of Dentistry, included interactive conversations about implicit or subconscious biases and stereotype threat, or the fear of confirming negative stereotypes about a specific group. **MD**

— HOLLY SELBY

Accolades



▲ **William F. Hoffman Jr., MAS**, research administrator, was a co-speaker at “Investigator/Faculty Onboarding: Facilitating the Transfer of Your New Principal Investigator,” a webinar presented at the Society of Research Administrators’ International Southern/Western Combined Sections Meeting in July 2020. He also co-presented “Investigator/Faculty Onboarding: Facilitating the Transfer of Your New PI” at the Society of Research Administrators International’s virtual annual

meeting in October. He also presented “Research Finance” at the Society of Research Administrators International’s Financial Management Conference in February.



▲ **Kalli Robertson**, president, Dental Hygiene Class of 2021, was awarded a University System of Maryland Alumni Association-International, Inc., scholarship for the 2020-2021 academic year in recognition of having a GPA of 3.25 or higher, leadership involvement, and contributions to the University of Maryland, Baltimore community and beyond.



▲ **Joyce Teixeira Da Silva, PhD**, postdoctoral fellow, was selected to participate in the Society for Neuroscience’s Neuroscience Scholars Program, a two-year online training open to underrepresented graduate students and postdoctoral researchers. She also was selected to be a mentor in the National Institutes of Health-funded BUILD 2 ASCEND program, a collaboration between UMB and Morgan State University designed to increase diversity in the biomedical community.



▲ **Carly Miller**, a student in the BS/MS Dual Degree Clinical Dental Hygiene Leader Track Class of 2022, was accepted to the Student Advisory Board at the Universities at Shady Grove.

Saluting Two Half Centuries (or More) of Service



When Charles Tires retired from the University of Maryland School of Dentistry (UMSOD)

in April, more than a half century had passed since he first started working at the University of Maryland, Baltimore (UMB).

Tires, a dental technician, began in 1967 at the then-University of Maryland Hospital, soon after his graduation from high school. After being drafted into the U.S. Army and serving his country, the Baltimore native returned to school via the G.I. Bill to study dental technology.

After that, Tires knew exactly where he wanted his career to take him next: “I wanted to work at the dental school. I didn’t want to work anywhere else,” he says. So, in 1979, he joined UMSOD — and stayed for 42 years.

His main responsibilities involved working with students, critiquing their work and fabricating their appliances.

He also helped out with the implant classes taught by Guadalupe Garcia Fay, DMD, clinical assistant professor in the Division of Prosthodontics, Department of Advanced Oral Sciences and Therapeutics.

“I loved working with the students,” Tires says. “That’s one thing I’ll miss: my interactions with them. They’ve always been very appreciative.”

During retirement, Tires, who is a licensed minister, aims to be more involved in his church, New Bethlehem Baptist in Baltimore. But first, he plans to head to Georgia to visit his daughter.

Looking back on his time at the University, Tires says he’d do it all over again. “I’ve got to give God credit for all that I’ve accomplished,” he says. “It’s been a wonderful journey.”

It was 1970 when Carol Stillwell began working at UMB, so she’s seen five decades of progress, growth, and change on campus and around the city.

“What I’ve liked most about working here is the camaraderie among our employees and that the people I’ve worked with all appreciate each other,” says Stillwell, who served 30 years as executive administrative assistant in UMSOD’s Division of Pediatric Dentistry. “I love it here at the School of Dentistry.”

Before joining UMSOD, Stillwell, who retired in April, worked for UMB leadership for 20 years after a short stint doing secretarial work at the University of Maryland School of Social Work.

Staff members like Tires and Stillwell are what make the School of Dentistry special, says Mark A. Reynolds, DDS ’86, PhD, UMSOD dean and professor. “Their service and dedication to the school are exemplary, and we hope that this next phase of life brings them both wonderful opportunities.” **MD**

— LOU CORTINA AND JOEL KABOT

SNDA Wins Outstanding Student Group Award

BY LOU CORTINA

Accolades are nothing new for the Student National Dental Association (SNDA) at the University of Maryland School of Dentistry (UMSOD).

For seven years in a row, the group has won first or second place in the national SNDA Chapter of the Year competition for its efforts to build minority representation in the oral health professions and spread inclusiveness at UMSOD and throughout the University of Maryland, Baltimore (UMB) and its surrounding community.

In 2020, SNDA won the Colgate Bright Smiles, Bright Futures Award, a national honor that highlights outstanding contributions to dentistry and community outreach. And now, the group has won a 2021 Rev. Dr. Martin Luther King Jr. Diversity Recognition Award, which honors the individual or group achievement of UMB faculty, staff, or students whose work epitomizes the ideals, life, and work of the late civil rights leader.

“SNDA members take a multifaceted approach by targeting diversity and thereby expanding inclusiveness in order to build a pipeline of future oral health professionals who are representative of the populations they serve,” Valli Meeks, DDS, MS, RDH, clinical professor in the Department of Oncology and Diagnostic Sciences at UMSOD, wrote in nominating SNDA for the UMB award.

“They support and mentor their fellow dental students as well as promote awareness for oral health care through their participation in community health fairs. I am particularly impressed with their participation in programs that focus on building health literacy and encouraging youths to aspire to careers in dentistry.

“Through their efforts on and off campus, SNDA members offer inspiration and pay tribute to Dr. King’s ideals of equality, justice, and opportunity for all people.”

How does SNDA make an impact? Let’s take a look:

Through the four-year-old Generation NeXT program, SNDA members mentor high school students who are training to be dental assistants at Baltimore’s



Members of the 2019-20 SNDA Executive Board

Vivien T. Thomas Medical Arts Academy and educate them about other oral health professions.

SNDA members participate in Impressions Day, an annual event where pre-dental undergraduates are introduced to dental professions and learn about the UMSOD experience and application process. An in-person Impressions Day was canceled in 2020 due to the COVID-19 pandemic, but the chapter held a virtual event that drew 300 attendees.

SNDA annually participates in health fairs and festivals, winter coat or toy drives, and a walk to raise oral cancer awareness. In the 2019-20 academic year, SNDA members volunteered at nine fairs or festivals, providing more than 330 free oral health screenings to Baltimore residents.

Through UMB’s Project Jump Start and the Baltimore nonprofit Moveable Feast, SNDA prepares lunch and dinner for the poor or people battling serious disease or illness. It also organizes Lessons in a Lunch Box, where SNDA

volunteers visit elementary schools, teach students about oral health, and hand out toothbrushes and dental floss.

“The members of SNDA are highly visible and inspirational ambassadors for UMB throughout the community,” Meeks wrote.

Andrea Morgan, DDS, MS, clinical assistant professor in UMSOD’s Division of Operative Dentistry and director of student advocacy and cultural affairs, was thrilled about SNDA’s latest award.

“I was elated when I heard that SNDA would be recognized for its extraordinary accomplishments,” said Morgan, a faculty advisor to the chapter. “This is a diverse group of students who believe in the core principles of the organization. And one of those principles is to help educate the community on the importance of oral health. Their work in mentoring high school students, pre-dental groups at local colleges, and students in Generation NeXT is a labor of love.” **MD**

“They support and mentor their fellow dental students as well as promote awareness for oral health care through their participation in community health fairs.”

— VALLI MEEKS, DDS, MS, RDH

Pen to Paper

Working with Mentors, UMSOD Students Gain Research, Writing Experience

BY HOLLY SELBY

It began as a professor's passion for research and mentoring eager-to-learn students. Now, nearly a decade later, Nasir Bashirelahi, PhD, professor in the University of Maryland School of Dentistry's (UMSOD) Department of Oncology and Diagnostic Sciences, has become a guiding force behind a steady flow of articles written by UMSOD students and published in the peer-reviewed journal *General Dentistry*.

In doing so, Bashirelahi — or “Dr. B” as he is known — also has created an unofficial, school-wide mentorship network by pairing interested students with willing faculty members drawn from a range of departments who then act as co-authors and advisors to the student-writers.

“The idea was to excite young people so they will love scholarly activities,” Bashirelahi says. “It is a win-win because if they continue these activities, they will always continue to learn, and if they go into academia, they will already know how to research and write articles.”

Bashirelahi's enthusiasm for research is infectious, says John K. Brooks, DDS '79, clinical professor in UMSOD's Department of Oncology and Diagnostic Sciences, who for the past five years has collaborated closely with Bashirelahi.

“Dr. B conceived of the idea of journal articles predominantly written by students but guided by faculty mentors,” Brooks says. “Research keeps you fresh. Your patients will see your passion for your field. As educators, we want students to have that passion and fire in the belly.”

The articles focus on current topics, frequently suggested by Bashirelahi, from cannabis to the effects of coffee on oral health. Since 2012, UMSOD students and their mentors have produced an average of two articles annually.

One recent submission was the cover story of the March/April issue of *General Dentistry*, which is published by the

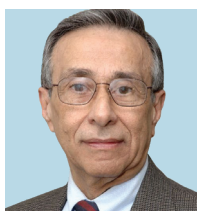


Academy of General Dentistry. Its co-authors are John Henry, DDS '21; Griffin Votolato, DDS '21; Bashirelahi; Brooks; and Fouad M. Abbas, MD, of MedStar Health. Titled “What Every Dentist Needs to Know About Human Papillomavirus,” it reviews the oral health implications of the human papillomavirus. (The student-written article, “What Every Dentist Should Know About Coffee,” also was featured as a cover story in *General Dentistry*. Co-authored by Lara Seidman, DDS '18; Ira T. Bloom, DDS '72, and Bashirelahi, it was published in the July/August 2016 issue.)

“Research is a great way to stay immersed in emerging topics and is a nice change of pace from clinical dentistry,” Henry says. “Dr. B and Dr. Brooks are great writers, so learning their insights on how to craft a scholarly article was very valuable.”

A third article, “What Every Dentist Needs to Know About Electronic Cigarettes,” appeared in *General Dentistry's* May/June 2021 issue. Its co-authors are Eugene G. Bestman, DDS '21; Brooks; Behzad Mostoufi, DDS, MDS, clinical instructor and director of the Implant Surgery Program in the Department of Oral and Maxillofacial Surgery; and Bashirelahi.

“I learned so much,” Bestman says. “I definitely hope to continue to do this at the next stage of my career.” 



Bashirelahi



Brooks



Bestman



Henry



Seidman



Votolato

Oral Health Promotion Day a Bridge to World of Dentistry

BY LAURA LEE



“Low-key fire” is how some University of Maryland, Baltimore (UMB) CURE Scholars described the sports-themed mouthguard they designed with the help of University of Maryland School of Dentistry (UMSOD) students during a virtual Oral Health Promotion Day on March 2. Depending on your generation, the phrase means “hot” or “cool.” Either way, it’s a good thing.

Before the COVID-19 pandemic, Oral Health Promotion Day was chock-full of in-person learning at UMSOD.

The annual event, also known as Sealant Saturday, typically gives the CURE Scholars and their siblings an opportunity to receive preventative dental care from dental hygiene students who perform oral exams and place dental sealants on their teeth.

This year, the scholars were still able to connect with UMSOD students but did so virtually. Even though it looked a little different from the annual in-person programming, the scholars were engaged and excited to learn more about oral health — and as part of the day’s fun, they designed sports-themed mouthguards.

Calling the scholars an “impressive group,” Mark A. Reynolds, DDS ’86, PhD, UMSOD dean and professor, kicked off the afternoon with remarks to the students. “When I look at the UMB CURE Scholars, I know that I’m seeing a group of students who are talented, committed, and, perhaps most of all, eager to learn,” he said.

Split into four breakout rooms with UMSOD student-leaders, the scholars were asked to solve a patient case, conduct basic research, and design a Baltimore-themed mouthguard. A highlight of the afternoon came when the groups reconvened to share their mouthguard designs. A team spokesperson presented the sports-themed designs that included logos from the Baltimore Orioles, Baltimore Ravens, New England Patriots, New York Jets, and Chicago Cubs.

Oral Health Promotion Day is part of the UMB CURE Scholars Program, a nationally recognized pilot mentoring program funded by the National Cancer Institute’s Continuing Umbrella of Research Experiences (CURE). **MD**

Digital Archive Will House Reflections on COVID-19



Reflections about fear, prayer, and gratitude written by a New York dentist who was infected with

COVID-19, recovered, and volunteered as an antibody study participant and convalescent plasma donor.

Notes from the Naval Health Clinic Annapolis, located at the U.S. Naval Academy, about taking swift measures — from temperature checks and mouth rinses to disposable gowns and high-powered air-filters — to ensure patient and practitioner safety against COVID-19.

Paintings created by a dentist who founded a nonprofit dedicated to creating sustainable dental clinics in developing nations and sought solace in art when COVID-19 halted his volunteer work.

These are a few of the essays, impressions, observations, and artworks submitted by dentists nationwide in response to a call from the American Dental Association (ADA) to share their experiences, feelings, and reflections during the pandemic.

Their submissions are being published as the *JADA+ COVID-19 Monograph*, a digital archive, launched in March, that will document the impact of the pandemic on the dental profession.

Guest-edited by Scott Swank, DDS, MS, FACD, the curator of the Dr. Samuel D. Harris National Museum of Dentistry and a clinical assistant professor in the Department of Dental Public Health at the University of Maryland School of Dentistry, the collection will serve as an archive of the dental community’s experiences and thoughts during the pandemic.

The *JADA+ COVID-19 Monograph* will play an important role in helping dentists, as well as historians, academicians, and health policymakers, interpret the impact of the pandemic in the years ahead, says Swank, who began editing submissions in June 2020.

“What is being submitted is really telling,” Swank said. “Each essay or artwork evokes where the contributor or artist was in terms of how they felt at that moment. One dentist submitted letters he wrote to his patients. Another sent in a painting that has a tooth exploding. Another wrote about his family’s experience.”

ADA is still accepting submissions. To learn more or submit a contribution, visit [ADA.org/covidmonograph](https://ada.org/covidmonograph). **MD**

— HOLLY SELBY

ByTheNumbers

Trending Upward: UMSOD Research Funding Continues Successful Trajectory

Grants and contracts have always been a strategic priority for the University of Maryland School of Dentistry (UMSOD), and, as shown by the numbers below, the school has built on that longstanding foundation over the past few years. Currently, the school has a broad and sustainable funding portfolio and nationwide recognition for the amount of grants and awards its researchers have received.



4th

UMSOD ranks fourth among schools of dentistry in National Institutes of Health (NIH) funding, according to the Blue Ridge Institute for Medical Research, which has tracked this data since 2006.

124



The number of grants and contracts submitted by UMSOD researchers during Fiscal Year 2020

123



The number of active grants and contracts at UMSOD during Fiscal Year 2020

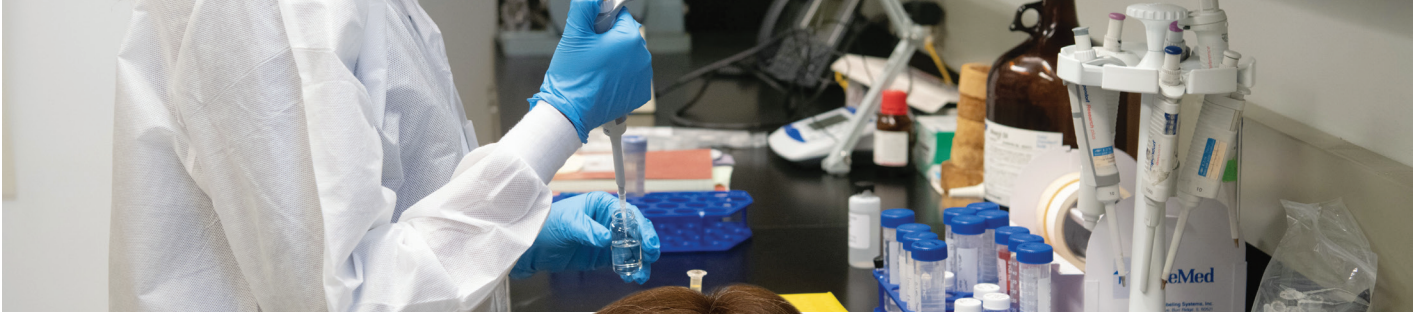
\$44 million

The total grant awards managed by UMSOD researchers in Fiscal Year 2020, a 29.4 percent increase over the previous year, and a 58.7 percent increase over FY18

25%



The increase in the number of peer-reviewed publications in 2020 compared to the previous academic year, as listed in the PubMed database



LEADING THE WAY

beyond BARRIERS

As the inaugural Frederick G. Smith, MS, DDS, & Venice K. Paterakis, DDS, Endowed Professor in Oral and Maxillofacial Surgery, Tao Lowe, PhD, is developing drug delivery platforms that transcend boundaries.

BY HOLLY SELBY

Growing up in China, Tao Lowe, PhD, suffered from tooth decay and received multiple fillings that, to her chagrin, came in gold, silver, and black. The experience made the young daughter of chemical engineering professors swear off sugary foods for years — and dream of developing more natural-looking materials that would make her smile beautiful.

Although as a youth she didn't invent a way to ensure what she calls "pretty teeth," Lowe's talent for spotting problems and dreaming of solutions has fueled her career as a scientist.

Today, her nanotechnology research focuses on delivering drug therapies across some of the human body's least-permeable barriers. Her lab at the University of Maryland School of Dentistry (UMSOD) is developing, among other things, delivery platforms that can cross many biological barriers and offer the controlled release of drugs that have the potential to aid patients with a wide range of diseases such as oral cancer and diabetic retinopathy.

Lowe also is leading UMSOD across an important institutional threshold as the inaugural Frederick G. Smith, MS, DDS, & Venice K. Paterakis, DDS, Endowed Professor in Oral and Maxillofacial Surgery — which is UMSOD's first endowed professorship. Lowe, who holds a joint appointment as a professor in the Fischell Department of Bioengineering at the University of Maryland, College Park (UMCP), has an additional research focus on regenerative medicine and tissue engineering.

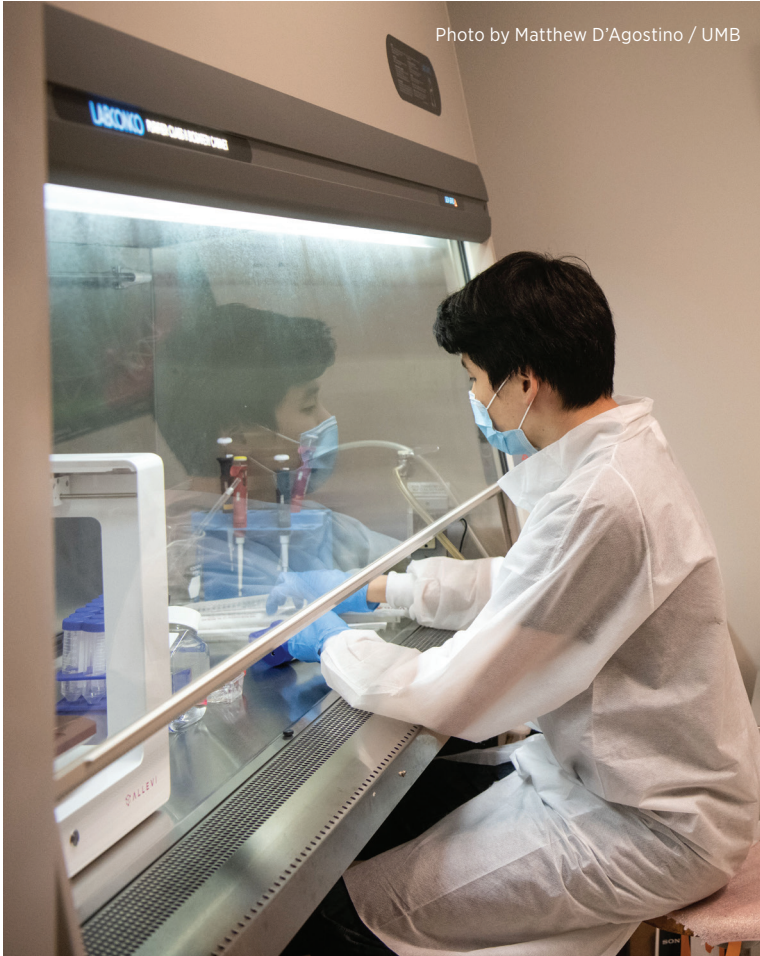
Created by philanthropists and School of Dentistry alumni Frederick G. Smith, MS, DDS '78, and Venice K. Paterakis, DDS '81, this first endowed UMSOD professorship marks a path toward greater research collaborations, larger and more rapid advancements in diagnoses and treatments, and transfers of novel discoveries into practical applications. (Read more about Drs. Smith and Paterakis on p. 15.)

The professorship, designed to provide resources to fund the work of an outstanding research scientist in the field of tissue engineering, also supports pioneering translational research and collaborations among UMSOD, the Fischell Department of Bioengineering, and other University of Maryland entities.

"I love my new job," Lowe says. "It offers me the opportunity to leverage the deep clinical knowledge, technology, and research of the Department of Oral and Maxillofacial Surgery, collaborate with other researchers at UMSOD and my peer bioengineers, and connect the dots in ways that are invaluable for translational research."

"Advancing oral health through scientific discovery and commitment to patient care are vital components of UMSOD's mission," says Mark A. Reynolds, DDS '86, PhD, UMSOD dean and professor. "This professorship provides critical support to outstanding faculty research by creating opportunities for new collaborations focused on translational discoveries and clinical advances in oral maxillofacial surgery."

Photo by Matthew D'Agostino / UMB



ABOVE: Sangyoon Kim, graduate student in the Fischell Department of Bioengineering at the University of Maryland, College Park and member of Tao Lowe's lab, tests the toxicity of nanogels in retinal epithelial cells.

PAGE 12: Tao Lowe, whose overarching focus is on developing novel biomaterials for translational research, holds eight patents and has two patents pending.

"I am deeply grateful to Drs. Smith and Paterakis for their visionary leadership and support, which will enable us to recruit and retain superlative faculty, and I'm extremely pleased that Dr. Lowe is here at the School of Dentistry."

Lowe came to UMSOD from the University of Tennessee Health Science Center, where she served as an associate professor of pharmaceutical sciences and biomedical engineering in the colleges of Pharmacy and Medicine, respectively.

After earning her bachelor's degree at the Nanjing University of Chemical Technology (now Nanjing Tech University), she received her master's degree in polymer science and chemistry from Tianjin University and a doctorate in polymer chemistry from the University of Helsinki in Finland. Lowe conducted two years of postdoctoral research in the Department of Chemical and Biological Engineering at the University of Wisconsin, Madison. She also served as an assistant professor of surgery, bioengineering, and materials science and engineering at the College of Medicine at Penn State University.

A fellow of the American Association of Pharmaceutical Scientists and the University of Maryland Research Leaders Fellows Program and a recipient of the Coulter Foundation Early Career Award in Translational Research, Lowe holds eight patents and has two patents pending.

Her overarching focus is on developing novel biomaterials for translational research; her lab, as her webpage notes, aims (among other things) to develop new biomaterials that offer "exquisitely sensitive" biodegradable platforms capable of the targeted delivery of therapeutic agents to the sites of oral, craniofacial, ocular, central nervous, cancerous, alveolar, or musculoskeletal lesions.

As a postdoctoral candidate seeking to develop her own professional path, Lowe says, she realized that "biomaterials for drug delivery and tissue engineering became a nice bridge connecting all my training — but also formed a new direction for the future."

Since arriving at UMSOD in 2020, she has established a robust research laboratory, providing training for 20 postdoctoral researchers and dental, medical, and graduate students. She also teaches a biomaterials course to undergraduate students at UMCP that explores the use of biomaterials for oral, craniofacial, and other applications.

In an ongoing National Institutes of Health-funded project, Lowe's group, some of whose members worked with her in Tennessee, has developed an injectable, insulin-loaded nanogel that is able to cross the blood retina barrier and allow a sustained, localized release of insulin to treat diabetic retinopathy (DR).

A condition that can cause blindness, DR affects 14 percent of the 29 million Americans with diabetes ages 20 to 74. It is difficult to treat because of blood ocular barriers, which prevent substances including drugs from passing through to the retina.

Lowe's nanogel technology, delivered via single injection, can cross that barrier and eliminate the need for myriad invasive treatments that can damage surrounding tissues. Lowe hopes this nanotechnology will one day be used to treat DR and other ocular diseases, from glaucoma to age-related macular degeneration.

In addition to developing nanotechnology for sustained drug delivery, Lowe's lab is developing 3D-bioprinted scaffolds — using cells and biomaterials to create bone and nerve-like structures of the face and mouth — that allow living cells to grow and function.

“Our focus is to create a microenvironment that can mimic the extracellular matrix in our body to provide chemical, physical, biological, and mechanical cues for cells to grow and differentiate to repair damaged tissues such as bone, cartilage, and nerve,” she says.

Lowe already is involved in several collaborative research projects with UMSOD, UMCP, University of Maryland School of Medicine (UMSOM) colleagues, and others.

She is working with Curt Civin, MD, UMSOM’s associate dean for research and director of the Center for Stem Cell Biology and Regenerative Medicine, to use nanotechnology to develop a way to deliver a potent drug for leukemia that was developed by Civin’s lab.

In another collaboration, Lowe again is working with Civin as well as Robert A. Ord, DDS, MD, chair of UMSOD’s Department of Oral and Maxillofacial Surgery, and John Fisher, PhD, chair of UMCP’s Fischell Department of Bioengineering, to create a 3D bioprinting of a cheek organoid to be used to repair defects caused by noma, a gangrenous condition that affects the mouth, nose, and lips.

Saying that she is settling in nicely, Lowe feels pleased with her new home.

“My brain is constantly going, and I love to solve problems. The fun part of doing research is really to identify problems and solve them,” she says. “Things are all good except that I have been extremely busy and need to find time to sleep.” **MJ**



PHILANTHROPISTS SMITH AND PATERAKIS ESTABLISH UMSOD’S FIRST ENDOWED PROFESSORSHIP

Renowned philanthropists Frederick G. Smith, MS, DDS ’78, and Venice K. Paterakis, DDS ’81, have been committed for decades to working to improve the human condition and serve the public good.

In 2015, the couple donated \$1.5 million to establish the first endowed professorship at the University of Maryland School of Dentistry (UMSOD), where they met as dental students in the late 1970s. In endowing the professorship, their aim was to support UMSOD’s efforts to recruit a prominent faculty member who would pursue new areas of research and innovative teaching methods.

“I’m proud to be able to play a role in enhancing the quality of the education that will be provided to future students,” Smith said. “The goal is to attract someone who can be creative enough to establish a revenue stream for the School of Dentistry, primarily through research and discovery, and that those advancements would also help improve the oral and overall health of the general public.”

Their generosity has enabled UMSOD to name Tao Lowe, PhD, as the school’s first endowed professor. Lowe will be celebrated as the inaugural Frederick G. Smith, MS, DDS, & Venice K. Paterakis, DDS, Endowed Professor in Oral and Maxillofacial Surgery at an investiture ceremony later this year.

Lowe, who holds a secondary faculty appointment in the Fischell Department of Bioengineering at the University of Maryland, College Park, focuses much of her research on the design and development of multifunctional biomaterials for targeted and sustained drug, gene, and cell delivery. Her investigations and discoveries will enhance UMSOD’s clinical and translational efforts in regenerative medicine and tissue engineering, helping to advance oral health and improve lives.

The endowed professorship is by no means the only educational venture the couple has supported. Recognizing that leadership

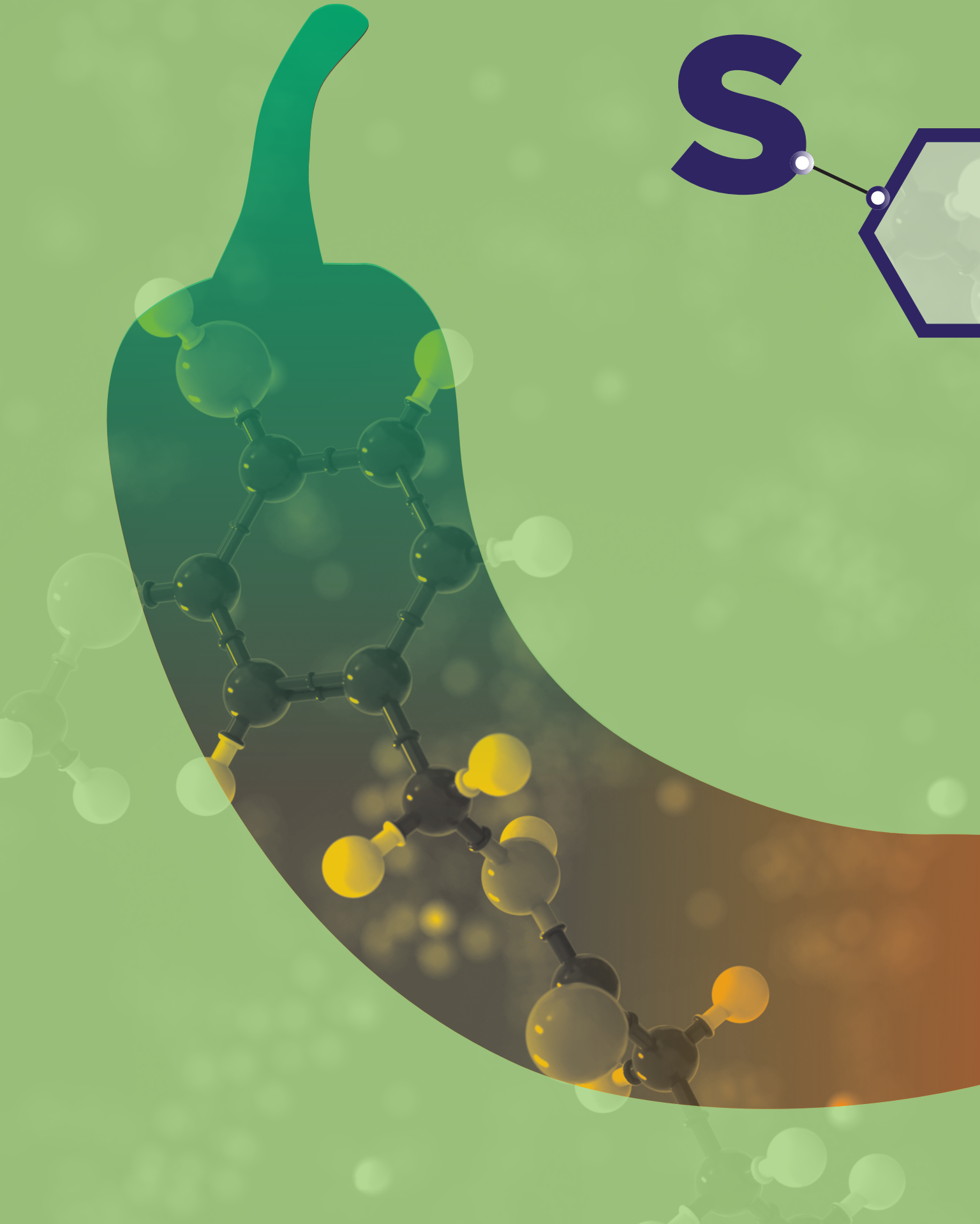
qualities are necessary for future success, Smith in 1996 founded Gerstell Academy, a private school for children in pre-kindergarten through 12th grade located near Westminster, Md. He is chairman of the board of trustees and president emeritus of the nonprofit institution, which teaches a curriculum focused on leadership, college preparatory academics, physical training, and modern language fluency. Paterakis also devotes time to the school as vice president and secretary of the board of trustees, after practicing dentistry.

Smith also serves on the board of trustees of the University of Maryland Baltimore Foundation, Inc., among other groups. Paterakis has been active with Maryland Ronald McDonald House Charities and supports many other charitable organizations such as Yumi CARES and Horizon Day Camps.

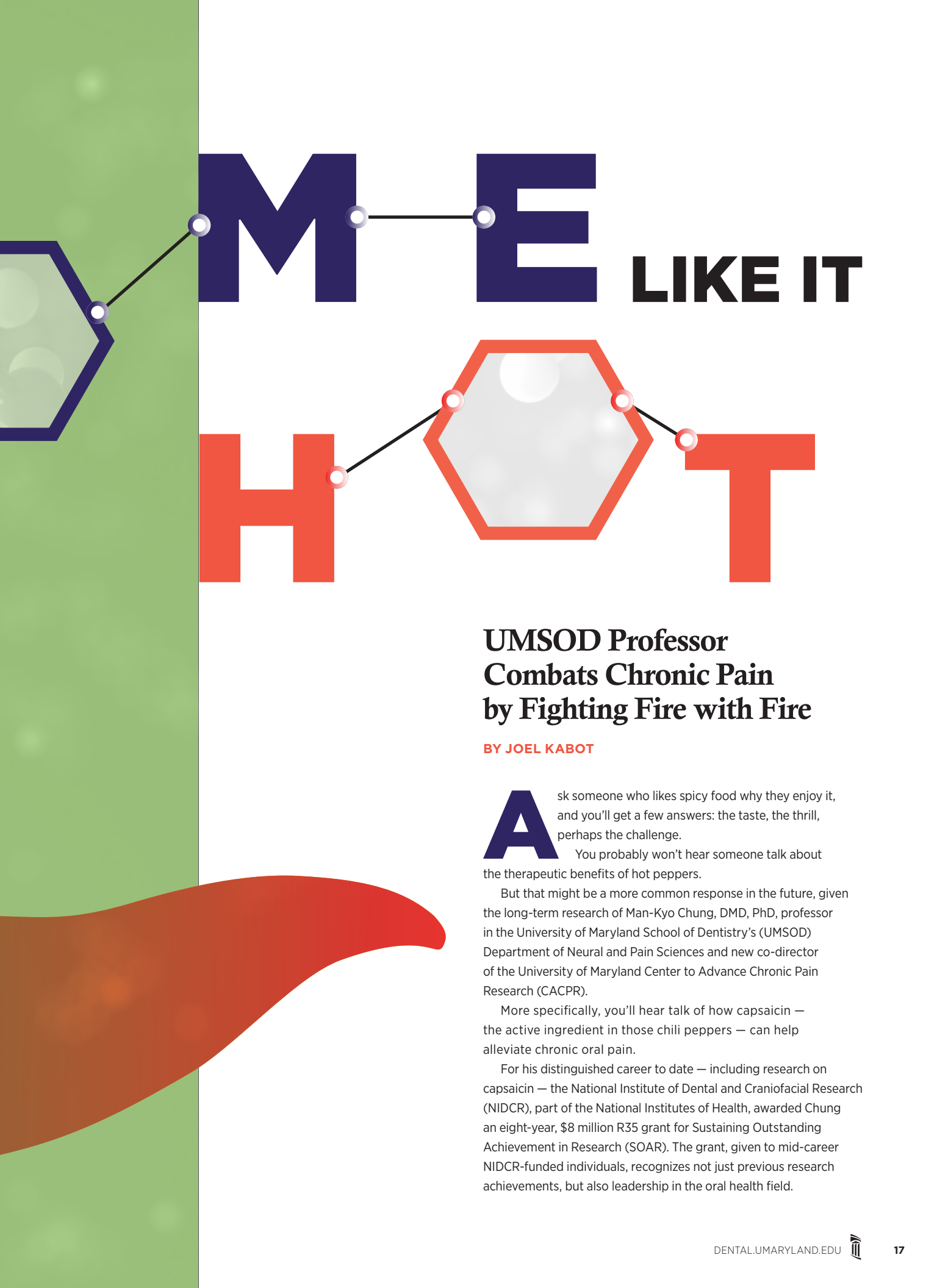
Smith and Paterakis, who in 2018 received Honorary Doctor of Public Service degrees from the University of Maryland, Baltimore, are members of prominent Baltimore families and can point to accomplishments in many other endeavors — including business and dentistry.

Smith is vice president and director of Baltimore-based Sinclair Broadcast Group, which owns nearly 200 TV stations across the United States. He practiced oral and maxillofacial surgery in Hunt Valley for more than a decade before joining his family’s media business. Paterakis, who practiced dentistry in the Fells Point/Harbor East area of the city for 33 years, is one of six children in a family that rose to prominence in Baltimore through its H&S Bakery business and more recently has been involved in the development of Harbor East.

Noting that she was honored to enhance education at the University, Paterakis said, “Philanthropy and service to the community were values instilled in me at a very young age.”



S



M E LIKE IT

H T

UMSOD Professor Combats Chronic Pain by Fighting Fire with Fire

BY JOEL KABOT

Ask someone who likes spicy food why they enjoy it, and you'll get a few answers: the taste, the thrill, perhaps the challenge.

You probably won't hear someone talk about the therapeutic benefits of hot peppers.

But that might be a more common response in the future, given the long-term research of Man-Kyo Chung, DMD, PhD, professor in the University of Maryland School of Dentistry's (UMSOD) Department of Neural and Pain Sciences and new co-director of the University of Maryland Center to Advance Chronic Pain Research (CACPR).

More specifically, you'll hear talk of how capsaicin — the active ingredient in those chili peppers — can help alleviate chronic oral pain.

For his distinguished career to date — including research on capsaicin — the National Institute of Dental and Craniofacial Research (NIDCR), part of the National Institutes of Health, awarded Chung an eight-year, \$8 million R35 grant for Sustaining Outstanding Achievement in Research (SOAR). The grant, given to mid-career NIDCR-funded individuals, recognizes not just previous research achievements, but also leadership in the oral health field.



“AS A BASIC SCIENTIST, I WANTED TO KNOW WHY [CAPSAICIN] RELIEVES PAIN. THAT REALLY MOTIVATED ME.”

— Man-Kyo Chung, PhD

“This award is very special because it’s not just about the research, and it provides long-term support,” Chung says. “An eight-year grant is extraordinary in the research world.”

Chung trained first as a dentist in his native South Korea. While he enjoyed the face-to-face interaction of meeting and treating patients, he was drawn repeatedly to one question: What makes patients feel pain?

His inquisitive nature led him to pursue a PhD in physiology as opposed to seeking specialty training in dentistry.

“I was always more enthusiastic about exploring new things,” he says.

During his three-year military service in South Korea, Chung had the time to decide whether he would stay in research or return to the clinical world. Ultimately, he chose the former, opting to become a dentist-scientist. That led him to the United States, and Baltimore in particular. For six years, Chung worked and trained further as a postdoctoral fellow in the Michael Caterina, MD, PhD, lab at Johns Hopkins University.

At Hopkins, he began a career-long interest in capsaicin and how and why it causes a burning sensation in humans.

“Capsaicin has a very specific receptor in the mammalian nervous system,” Chung says. “Without that receptor, you don’t feel the burning sensation you associate with spicy food.”

He notes that people around the world have used capsaicin to treat pain for centuries, but no one really knows how it works.

Because of that, Chung “became fascinated by this molecule,” as he puts it. “As a basic scientist, I wanted to know why it relieves pain. That really motivated me.”

That motivation brought him to UMSOD, where he’s operated a laboratory for the past 12 years. His research at the school found that, when tested on mice, a one-time topical application of capsaicin could provide weeks-long relief from chronic pain.

That’s promising because current drugs targeting chronic oral health pain often have severe side effects. Capsaicin does not.

“Current therapeutics target the brain,” Chung says. “That’s the main problem of current therapy — the side effects that result. Capsaicin offers a promising alternative.”

It appears that capsaicin may not only provide relief from pain, but treat it, as well. As pain becomes more chronic, Chung says, “There is consensus that the brain network changes over time.”

But topical capsaicin, according to preliminary research, may reverse those changes in the brain and thus serve as disease-modifying treatment.

Chung is collaborating with two UMSOD colleagues — David A. Seminowicz, PhD, associate professor, and Feng Wei, PhD, MD,

ABOVE: Man-Kyo Chung pipettes capsaicin, the active ingredient in chili peppers, into a solution.

OPPOSITE PAGE:

Top: Man-Kyo in his UMSOD lab.
Bottom: the molecular structure of capsaicin

Photos by Matthew D’Agostino / UMB

professor, both also from Neural and Pain Sciences — to explore this further. Using the brain imaging lab of Seminowicz and the pain research expertise of Wei, Chung hopes to unlock the possibly revolutionary benefits of capsaicin.

That's only half of the SOAR grant, however. The other part supports research into bone resorption as a result of periodontitis, or gum disease.

"Over years or decades, due to periodontitis, the bone around the tooth melts down. The tooth begins to move and has to be extracted," Chung says. "Forty percent of adults in the United States have periodontitis."

His research focuses on the pain-sensing neuron, or nociceptor, that regulates the immune response and bone remodeling in the oral cavity. Chung's aim is twofold: determining how the pain-sensing nerve leads to the development of chronic pain, and how it relates to bone resorption.

"We found that the sensory nerve plays a role in periodontitis progression and orthodontic tooth movement," Chung says. "It regulates the biological process controlling bone remodeling."

So, Chung says, "by manipulating that sensory nerve, we can delay that resorption."

These two very different research topics — capsaicin and bone remodeling — highlight one main benefit of the SOAR grant.

"The grant gives me a lot of room," Chung says. "It's very flexible, allowing different types of projects."

That diversity of study will serve him well with CACPR, too, alongside fellow co-director Susan G. Dorsey, PhD, RN, FAAN, professor and chair of the Department of Pain and Translational Symptom Science at the University of Maryland School of Nursing. Chung will pick up where his predecessor, the late Joel D. Greenspan, PhD, former professor and chair of Neural and Pain Sciences at UMSOD, left off.

Chung, a longtime member of the organization that unites pain researchers from all across the University of Maryland, Baltimore (UMB) campus — the first Universitywide research center, in fact — speaks highly of CACPR and its transformational research.

"CACPR has cultivated a collaborative environment not only for basic and translational pain research, but also for pain-related policy and overall care of pain patients," he says. "I aim to continue Dr. Greenspan's legacy of advancing chronic pain research throughout UMB."

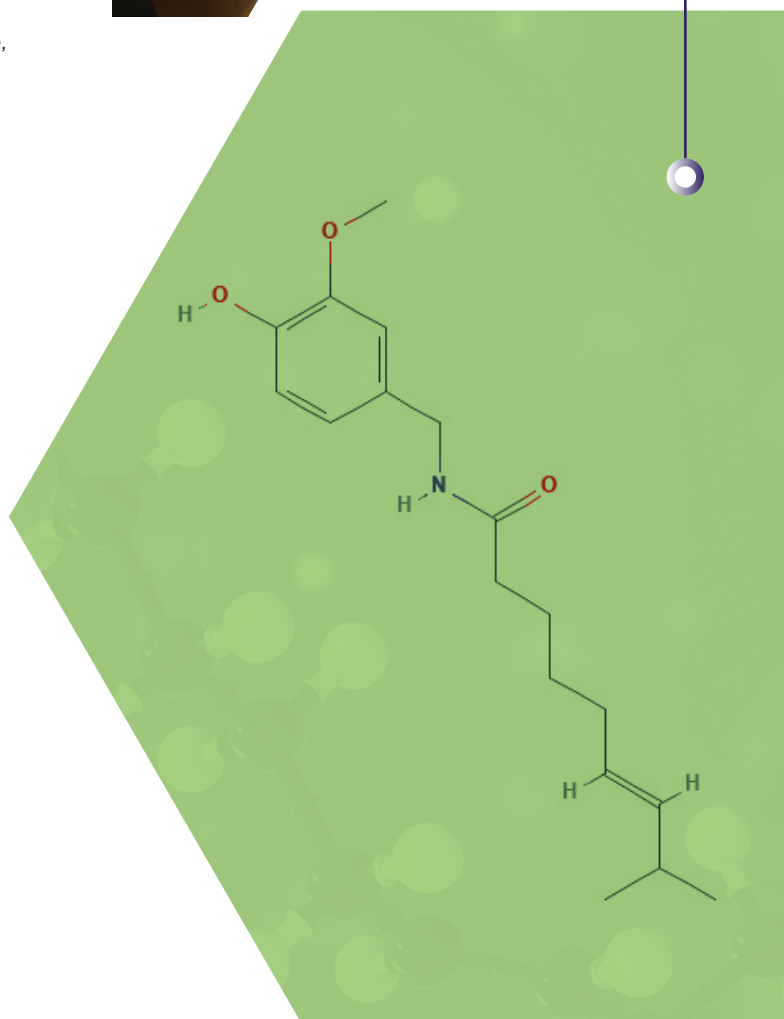
Mark A. Reynolds, DDS '86, PhD, dean of UMSOD, has no doubt that Chung will do just that.

"Given his strong record in research, as evidenced by the SOAR grant — just another in a long line of National Institutes of Health funding — Dr. Chung will be an exemplary co-director and continue CACPR's long tradition of approaching chronic pain from a broad, multidisciplinary perspective," Reynolds says.

"Dr. Chung's own superlative research at UMSOD shows the importance of looking at chronic pain from all angles."

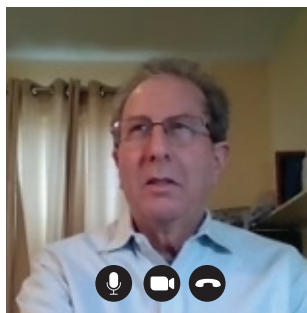
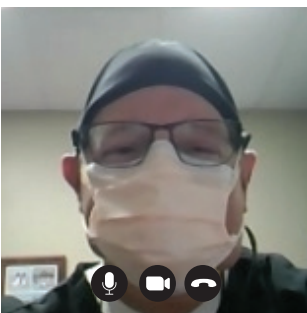
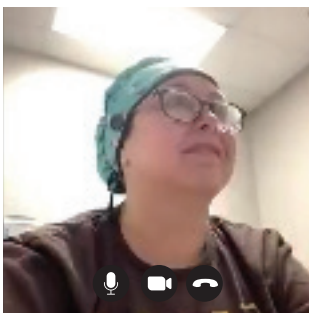
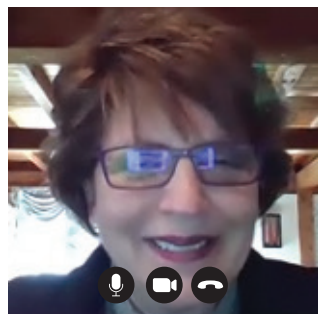
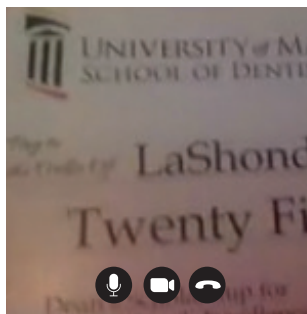
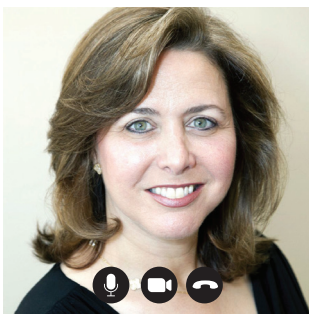
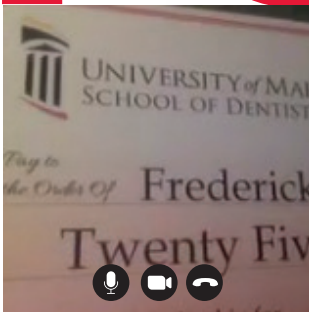
Although he's got a lot on his plate — and not just chili peppers, of course — Chung welcomes the challenges that come with his work. After all, he's still motivated by that singular word: *Why?*

"I'm in research to discover new things," he says. "And I'm grateful UMSOD has given me a place to do that." **MD**



ALUMNI INVEST IN

FUTURE



LaShonda Shepherd and Frederick Flanagan were invited to Zoom meetings attended by Mark A. Reynolds, UMSOD dean and professor, and faculty and staff. Once there, the students were surprised to learn that they were inaugural recipients of the Dean's Scholarship for Leadership & Excellence.

Photo illustration by BCG

LEADERS

UMSOD Announces Inaugural Recipients of New Dean's Scholarship for Leadership & Excellence

BY HOLLY SELBY

The University of Maryland School of Dentistry (UMSOD) is proud to announce the inaugural recipients of the new Dean's Scholarship for Leadership & Excellence. The recipients, LaShonda Shepherd, DDS '21, and Frederick Flanagan, Class of 2022, each will receive \$25,000 scholarships.

"Dentistry is among the most expensive health professions to study. Our goal is to support students as they focus on academic excellence and benefit from opportunities to enrich their professional development," said Mark A. Reynolds, DDS '86, PhD, UMSOD dean and professor.

"I am delighted to launch the inaugural Dean's Scholarship for Leadership & Excellence. The achievements and contributions of the students considered for this honor were quite impressive, and I look forward to awarding the scholarship to other remarkable students in future years."

Designed to honor and support students who succeed within the classroom and clinic, demonstrate promise as leaders throughout the school and community, and aspire to continue in public service, the scholarship is supported primarily by UMSOD's Socks for Scholarships fundraising effort. As part of the initiative, launched in late 2019, donors who make a minimum gift or pledge of \$100 to the fund receive a pair of UMSOD-themed socks as a thank-you.

In its first year, the initiative raised about \$30,000 from 133 donors. Thus far in Fiscal Year 2021, Socks for Scholarships has raised nearly \$100,000 from 224 donors.

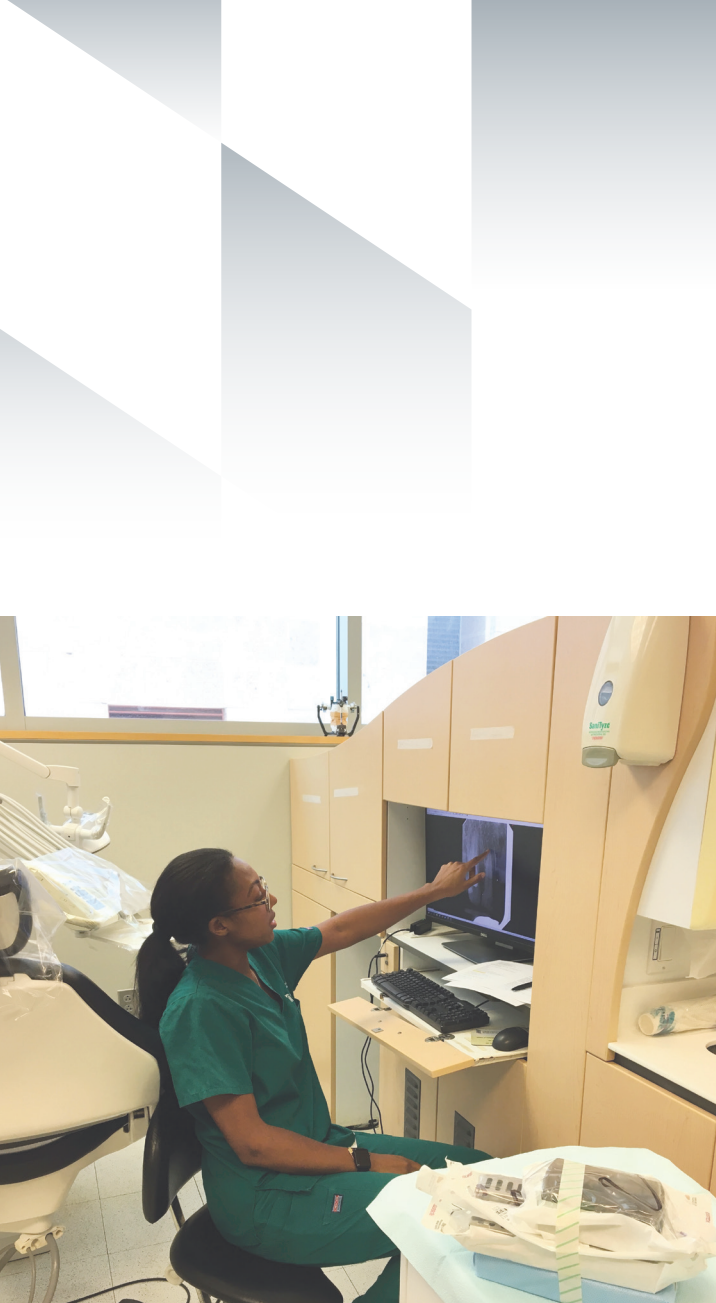
Increasing the scholarship endowment is a fundraising priority for the school, said Janet Wiley, assistant dean for development and alumni relations. From 2015 through 2020, the number of scholarships offered to students by UMSOD increased from 39 to 69. The scholarship endowment grew from \$2,527,921 to \$6,428,501.

"With this scholarship, we are able to offer students significant support as they advance their training as oral health professionals," Wiley said. "I wholeheartedly congratulate both of our recipients."

To kick off the new scholarship, a surprise was planned for the recipients. Both were invited to meet separately via Zoom for what they thought would be a final application interview. They were met by UMSOD administrators, Office of Development and Alumni Relations staff members, and alumni from the Scholarship Committee who pretended to interview them.

But a few moments into each meeting, the dean made a surprise appearance — and announced the good news.

To Shepherd and Flanagan in turn, Reynolds said: "You are highly deserving because of your accomplishments and all that you aspire to achieve. We have not lost sight of the tremendous effort and commitment that it takes to excel as a dental student. We are exceedingly proud of you."



“WHAT REALLY SOLIDIFIED MY INTEREST IN DENTISTRY WAS SEEING THE DIFFERENCE IN MY MOTHER’S APPEARANCE AND WHAT IT DID FOR HER CONFIDENCE.”

— LaShonda Shepherd, DDS '21

IMPROVING ACCESS, PROMOTING SERVICE

Growing up in Grady, a small town in rural Alabama, Shepherd often accompanied her mother to the dentist, where she saw firsthand how important access to good dental care could be.

“What really solidified my interest in dentistry was seeing the difference in my mother’s appearance and what it did for her confidence,” Shepherd said. “Although my mother could get the treatment she needed, I also saw how many people have significant dental issues because of lack of access and education.”

Shepherd majored in public and community health at the University of Maryland, College Park with the idea of pursuing dentistry. After graduating in 2009, she decided to work for a year before applying to dental school.

But after she was hired by the Climate Reality Project, an educational nonprofit, one year stretched into several. “My initial plan was to pay off some undergraduate debt and then return to school, but I felt like we were doing substantive work, so I continued to work and began taking evening courses to finish my prerequisites,” she said.

Shepherd stayed connected to dentistry by shadowing a dentist in private practice in Oxon Hill and La Plata, Md., and volunteering at Community Clinic Inc., a public health clinic in Silver Spring, Md.

In 2017, she entered UMSOD, where she has remained passionate about expanding access to health care and aiding vulnerable populations. As a student, she served as a mentor to girls in her Alabama hometown and high school students at Vivien T. Thomas Medical Arts Academy in Southwest Baltimore through the Generation NeXT program, which is organized by UMSOD’s chapter of the Student National Dental Association (SNDA).

In addition to belonging to SNDA, Shepherd was a member of the American Student Dental Association (ASDA). During her tenure with SNDA, she led service initiatives such as free oral cancer screening events and campaigns to collect and donate toys, women’s toiletry items, and oral hygiene kits to local shelters. Through ASDA, she has advocated for the expansion of dental coverage for underinsured populations, including the federal Action for Dental Health Act, which became law in 2018 and will increase access to oral health care. Shepherd also sat on the University of Maryland, Baltimore’s Diversity Advisory Council and UMSOD’s Admissions Committee.

After graduating in May 2021, Shepherd began a general practice residency at NYU Langone Hospital-Long Island in New York (formerly known as NYU Winthrop Hospital). In the future, she hopes to practice in Maryland while returning regularly to a health clinic located near her childhood home that, at present, has no dentist. In the next year, she said, “I hope to get a lot of experience because I would eventually like to go into public health dentistry and may end up practicing in areas where I am the only dentist in the general vicinity.”

PASTOR AND FUTURE PRACTITIONER

Early in life, Flanagan lost his father to a drug overdose. His mother was involved with drugs, too, but over time joined a church and turned her life around.

“My mother found faith, and she repented and told my sister and me, ‘From this point forward, I will change my life,’” said Flanagan, who grew up in Glen Burnie, Md. “That led her to change all the mistakes she was making. And that led her to become a pastor.”

She also began offering shelter to homeless women and children. “As a single mom, she started taking in other single moms. Sometimes they’d be sleeping on the couch. She was doing everything she could to give back,” Flanagan said.

Her example also led Flanagan to join her at the Church of God. At age 12, he gave his first sermon; at age 18, he became a pastor. “Growing up in the church after seeing the change in my mom obviously reinforced my belief that this was an answer to my need. It had a huge impact,” Flanagan said.

Eventually, his mother remarried and took a job in an endodontist’s office. She also began urging Flanagan to become a dentist because, she said, the profession offered opportunities to help those in need.

Flanagan followed her advice and, while in his teens, worked in the Annapolis office of E. Taylor Meiser Jr., DDS ’77. The experience convinced Flanagan that dentistry was for him.

“I realized that there were professionals out there doing charity cases and taking the time after hours to help people in need,” Flanagan said. “I realized that as a pastor I can counsel and encourage, but telling someone God loves them is one aspect and showing God’s love is another. Dentistry became my way of showing that love.”

Now in his fourth year at UMSOD, Flanagan, who is the first in his family to graduate from college, holds bachelor’s and master’s degrees in biological sciences and applied molecular biology from the University of Maryland, Baltimore County. He is a pastor at the Redemption House Life Center in Pasadena and founder of a nonprofit called The Cave, Inc., dedicated to enhancing youths’ well-being through events such as contests, games, and live music. He has worked as an inspirational speaker for youth conferences on the East and West Coasts, participated in missions in India, and served as a missionary in Jamaica.

Flanagan, who lives in Baltimore with his wife and 3-year-old daughter, envisions practicing dentistry in an underserved area, participating in many more mission trips, and launching a dental practice through which other practitioners can volunteer their time and donate their expertise to those in need.

“That’s the big picture, and I know I need to take it step by step,” he said. “It is something I really look forward to.” **Md**

“GROWING UP IN THE CHURCH AFTER SEEING THE CHANGE IN MY MOM OBVIOUSLY REINFORCED MY BELIEF THAT THIS WAS AN ANSWER TO MY NEED. IT HAD A HUGE IMPACT.”

— Frederick Flanagan, Class of 2022



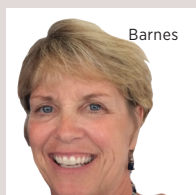
Lasting Impressions

Laurels



Abdulrahman Balhaddad, BDS, MS, PhD candidate, Dental Biomedical Sciences Program; **Michael Raderman, DDS**, member,

Dean's Faculty; **Mary Anne Melo, DDS, MS, PhD**, associate professor and interim chair, Department of General Dentistry; **Howard Strassler, DMD**, professor, Division of Operative Dentistry; **Elaine Miginsky, DDS**, clinical instructor, Division of Operative Dentistry; and **Ward Massey, BDS, PhD**, clinical associate professor, Department of General Dentistry, were among the co-authors of "Hands-on Training Based on Quantifying Radiant Exposure Improves How Dental Students Cure Composites: Skill Retention at 2-Year Follow-Up," which was published in the *European Journal of Dental Education*.



Christine Barnes, RDH, clinical instructor; **Oksana Mishler, RDH, MS, DHSc**, clinical assistant professor; **Harlan**

Shiau, DDS, DMedSc, clinical associate professor; and **Se-Lim Oh, DMD, MS**, clinical associate professor, all from the Division of Periodontics, Department of Advanced Oral Sciences and Therapeutics, co-authored "Remote Simulation-Based Learning for Periodontal Instrumentation in Preclinical Education," which was published in the *Journal of Dental Education*.



Bavoil

Patrik Bavoil, PhD, professor and chair, Department of Microbial Pathogenesis, was unanimously re-

lected for a second term as trustee/director, research and publications, at the European Microbiology Societies' annual general meeting.



Chellaiah

Meenakshi A. Chellaiah, PhD, professor, Department of Oncology and Diagnostic Sciences, co-

authored "Osteoclast Cytoskeleton, Podosome, Motility, Attachment, and Signaling by Receptors," which was published in the *Encyclopedia of Bone Biology*, and "Identification of Sequence-Specific Interactions of the CD44-Intracellular Domain with RUNX2 in the Transcription of Matrix Metalloprotease-9 in Human Prostate Cancer Cells," which was published in *Cancer Drug Resistance*.



Driscoll

Carl F. Driscoll, DMD, FACP, professor, Department of Advanced Oral Sciences and Therapeutics,

received the American College of Prosthodontists' 2020 Major General Bill B. Lefler Federal Services Award,

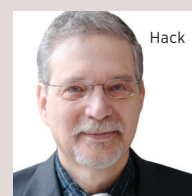
which recognizes excellence in leadership, patient care, mentorship, and service to the community.



Finrock

Cynthia Finrock, RDH, MS, clinical instructor, Division of Dental Hygiene, Department of Advanced Oral Sciences and

Therapeutics, and staff member, Faculty Practice, was installed as president of the Maryland Dental Hygienists' Association at the organization's annual session, held virtually Oct. 22-23.

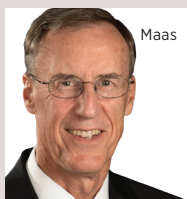


Hack

Gary D. Hack, DDS, associate professor, Department of Advanced Oral Sciences and Therapeutics, wrote "A

Developmental Marker of Schizophrenia: A Compelling Case Study of the Value of International, Interprofessional Collaboration to Enhance Research Efforts," published in the Consortium of Universities for Global Health's (CUGH) 2020 e-book. He is co-author of "Remote Diabetes Screening Exercise in the Second-Year Periodontics Course and Student Perceptions," published in the *Journal of Dental Education*; and "Evaluation of the Accuracy of an Intraoral Scanner: An Update on the Omnicam," published in *Global Dentistry*. In March, he presented "A Developmental Marker

of Schizophrenia: A Compelling Case Study of the Value of International, Interprofessional Collaboration to Enhance Research Efforts” at CUGH’s 2021 virtual conference.



Maas

William R. Maas, DDS, MPH, MS, clinical professor, Department of Orthodontics and Pediatric Dentistry, received the John

W. Knutson Distinguished Service Award in Dental Public Health from the Oral Health Section of the American Public Health Association. The award honors an individual who has made outstanding contributions to improving oral health in the United States.



Macek

Mark D. Macek, DDS, DrPH, professor, Department of Dental Public Health, and assistant dean for

curriculum innovation and scholarship, was named a director of the American Board of Dental Public Health.



Melemedjian

Ohannes Melemedjian, PhD, assistant professor, Department of Neural and Pain Sciences, received a four-

year, \$1.5 million grant from the National Cancer Institute for “Identification of Novel Targets for the Treatment of Chemotherapy-Induced Painful Peripheral Neuropathy,” and a four-year, \$1.5 million grant from the National Institute of Neurological Disorders and Stroke for “Validating ASCT2 for the Treatment of Chronic Postsurgical Pain.”



Melo

Mary Anne Melo, DDS, MS, PhD, associate professor and interim chair, Department of General Dentistry, was awarded

the 2020 Jon B. Suzuki Research Award from the National Dental Honor Society Omicron Kappa Upsilon. The award encourages dental school faculty members to initiate and develop clinical or basic science research. She also edited the book “Designing Bioactive Polymeric Materials for Restorative Dentistry.”



Montaner

Silvia Montaner, PhD, MPH, professor, Department of Oncology and Diagnostic Sciences,

received a National Institutes of Health administrative supplement for the National Eye Institute grant “Promotion of Retinal Vascular Hyperpermeability and Macular Edema by ANGPTL4.”



Pae

Eung-Kwon Pae, DDS, MSc, PhD, associate professor, Department of Orthodontics and Pediatric Dentistry, co-authored

“A Clinically Friendly Viscoelastic Finite Element Analysis Model of the Mandible with Herbst Appliance,” which was published in the American Journal of Orthodontics and Dentofacial Orthopedics.



Reynolds

The following contributed to the book “Risk Factors for Peri-Implant Diseases”: **Mark A. Reynolds, DDS, PhD,** professor

and dean; **Hanae Saito, DDS, MS,** clinical associate professor; **Radi Masri, DDS, MS,**

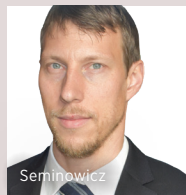
PhD, professor; **Harlan J. Shiau, DDS, DMedSc,** clinical associate professor; **Thomas W. Oates, DMD, PhD,** professor; **Anmar A. Kensara, BDS, MS,** doctoral student; **Alyssa Dierkes, DDS,** resident; and **Katherine Ni, DMD,** resident.



Schneider

Abraham Schneider, DDS, PhD, associate professor, Department of Oncology and Diagnostic

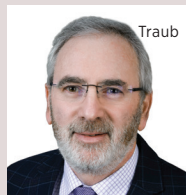
Sciences, and **Huakun Xu, PhD, MS,** professor, Department of Advanced Oral Sciences and Therapeutics, and director, Division of Biomaterials and Tissue Engineering, received a two-year, \$424,875 grant from the National Institute of Dental and Craniofacial Research for “A Novel Metformin-Nanomineral Scaffold as Enhancer of Craniofacial Bone Regeneration and Angiogenesis via Dental Pulp Stem Cells.”



Seminowicz

David A. Seminowicz, PhD, associate professor, Department of Neural and Pain Sciences, is the senior author of

“Sensorimotor Peak Alpha Frequency Is a Reliable Biomarker of Prolonged Pain Sensitivity,” which was published in Cerebral Cortex.



Traub

Richard Traub, PhD, professor, and **Ohannes Melemedjian, PhD,** assistant professor, both from the Department of

Neural and Pain Sciences, received a four-year, \$3 million grant from the National Institute of Dental and Craniofacial Research for “Novel Target Identification for Treatment of Chronic Overlapping Pain Using Multimodal Brain Imaging.”

In Appreciation

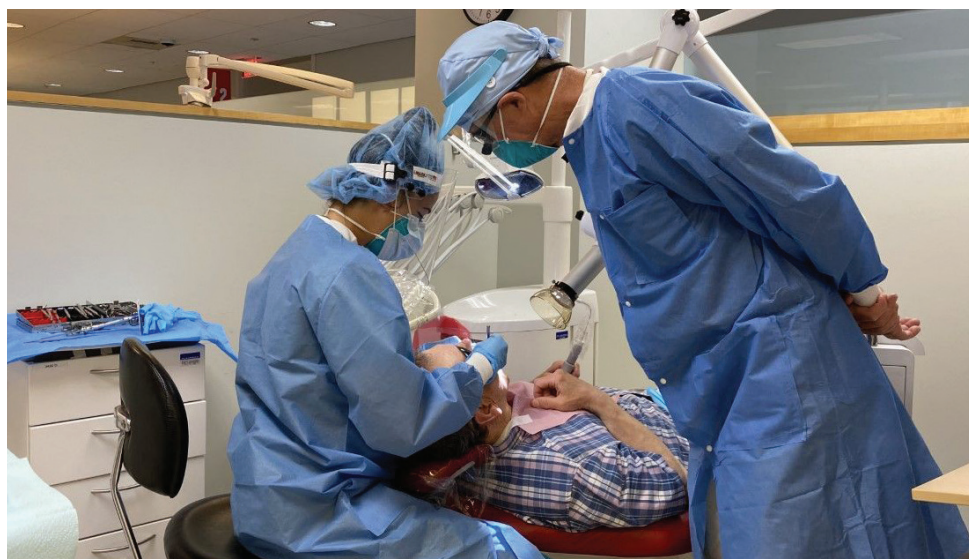
of the 2020-21 Dean's Faculty

The University of Maryland School of Dentistry would like to thank the professionals who generously volunteer as members of the Dean's Faculty.

Although, due to the COVID-19 pandemic, the clinics were closed in 2020 for several weeks during the spring and early summer to all but emergency-only oral health care clinicians, Dean's Faculty members were back on hand as soon as they were allowed — offering their time, energy, and expertise to the next generation of oral health care leaders.

Ronald I. Ackerman, DDS	Paul Bylis, DDS	Richard Fein, DMD	Robert "Mark" Horner, DDS
Oluwayemisi Titilayo Akinrefon, DDS	Jerome Casper, DMD	Sylvan Feldman, DDS	Andrew Horng, DDS
Guy Alexander, DDS	Iysha Cawthon, DDS	Cynthia Finfrock, RDH, MS	Peterson Huang, DMD
Andrew Allen, DDS	Natalia Chalmers, DDS	Fred Fink, DDS	Julius Hyatt, DDS
Lori Andochick, RDH, DDS	Jay Chason, DDS	Ivan S. Fried, DDS	Laudan Izadi, DDS
Dawn Anthony, RDH	Dina Chehab, DDS	Jacqueline Fried, RDH, MS	Courtney Jackson, DDS
Roghieh Atapour, DDS	Charles Chen, DDS	Colin Galbraith, DMD	Jeffrey Jarvis, DDS
Ali Azad, DDS	Richard Cheskis, DDS	Stephen Gandel, DDS	Chao Ji, BDS
Behnaz Bagheri, DDS	Barry Cohan, DDS	Judith Gaston, RN	Beverly Jimenez, DDS
Christopher Bailey, DDS	Harvey Cohen, DDS	Philip Gentry, DDS	Christopher Jin, DMD
William Barrett, DDS	Howard Cohen, DDS	Edward Gillis, DDS	Hiba Kamel-Kassab, DMD
Thomas Barron, DDS	Paul G. Corcoran, DDS	A. Gary Goodman, DDS	Mary Kang, DDS
Jeffrey Behar, DDS, FAGD, AFAAID	Antara Daru, BDS	David Gordon, DDS	Daniel Karlin, DDS
Ali Behnia, DMD	Wendy Daulat, DDS	Louis Gorman, DDS	Susan Katz, RDH
Louis Berman, DDS	Henry David, DDS	Gordon Groisser, DDS, MSD	Mark Keiser, DDS
Alan Berne, DDS	Ronald Davis, DDS	Frank Grosso, DDS	Wahn Khang, DMD
Leonard Bers, DDS	Richard Diaz, DDS	Jenny Hager, RDH	Su Kim, DDS
Shameem Bham, DDS	Vincent DiFabio, DDS	David Harmon, DDS	Dushanka Kleinman, DDS
Ignacio Blasi, DDS	Charles Doring, DDS	Michael Hartman, DMD, MD	Morgan Kneib-Baker, DMD, RDH
Gonzalo Blasi-Beriain, DDS	Andrey Doroshenko, DDS	Joseph Heher, DDS	Shari Kohn, DDS
Keith Boenning, DDS	Allan M. Dworkin, DDS	Edna Hirsch, DDS	Catherine Kolasny, DDS
Warren Brill, DMD	Bruce Dye, DDS	Lubor Hlousek, DMD, MD	Charles Kovalchick, DDS
Sol Brotman, DDS	Barry S. Edland, DDS	Daniel Hoch, DDS	Hakan Koymen, DDS
	Samuel El-Hadad, DDS		Richard Kramer, DDS
	Karim Elrafei, DDS		Neal Kravitz, DMD
	Henry Fasteau, DDS		

William Kreul, DDS
 Richard Kuntz, DDS
 Melvin Kushner, DDS
 Alan Wonhee Lee,
 DDS, MS
 Henry Lee, DDS
 Christine Leo, RDH, BS
 Richard Leupold, DDS
 Martin Levin, DMD
 Stephen Levin, DDS
 Christopher Liang, DDS
 Chang Lin, DDS
 Mao Lin, DDS
 Morris Lustman, DDS
 William Maas, DDS
 Charles Mann, DMD
 Marion Manski,
 RDH, MS
 Philip Markin, DDS
 Christiana Markova,
 DMD
 Miluska Masaschi-
 Sanchez, DDS
 Austin Maxwell, DDS
 David Mazza, DDS
 Patricia McGuire,
 RDH, BS
 John Meredith, DDS
 Elaine Miginsky, DDS
 Anastasia Mischenko,
 DDS
 Julian Moiseiwitsch,
 BDS, PhD
 Edwin Morris, DDS
 Ronald Moser, DDS
 Niki Moutsopoulos,
 DDS
 Kevin Murphy, DDS
 Sathyanathan
 Nadarajah, DMD
 Christina Nave, RDH
 Mimi Nguyen, DDS, PA
 Angela Noguera, DDS
 Robert Noppinger, DDS



ABOVE: Barry S. Edland, DDS, observes as Samantha Bordener, RDH, DDS '21, treats a patient.

Ali Nosrat, DDS
 Lawrence Nurin, DMD
 Youssef Obeid, DDS
 Augustine Paik, DDS
 Gilbert Palmieri, DDS
 Dong Park, DDS, MS, PhD
 Mary Passaniti, DDS
 Mervyn Pinerman, DDS
 Jeffrey Posnick, DDS
 Sumesh Potluri, DMD
 John Powers, DMD
 Frederick Preis, DDS
 Steven Pruce, DDS
 Michael Raderman, DDS
 Roham Rafat, DDS
 Steven Rattner, DDS
 Brynne Reece, DDS
 Michael Rethman, DDS
 Adel Rizkalla, DDS
 Deborah Rodriguez, DDS
 Paul Rosen, DMD
 Tarun Saini, DDS
 Viney Saini, DDS
 Aala Salimian, DDS
 Peter Samuels, DDS
 John Sawchuk,
 DDS, FAGD

Richard Schlossberg, DDS
 S. Craig Schneider, DDS
 Bethany Serafin Awalt,
 DMD
 Suzanne Setayesh, DDS
 Juheon Seung, DDS
 Mohammad Shahegh,
 DDS
 Nahid Shahry, DDS
 Stuart Sheer, DDS
 Paul Shires, DDS
 Devon Shroff, DMD
 Robert Shub, DDS
 Victor Siegel, DDS
 Michael Singer, DDS
 T.P. Sivakumar, BDS
 Terry Slevin, DDS
 David Somerville, DDS
 Andrew Sorkin, DMD
 Leonard Spector, DDS
 David Steiner, DDS
 Dennis Stiles, DDS
 Marie Stiles, DDS
 Howard Strassler, DMD
 Jon Suzuki, DDS
 Gary Swiec, DDS
 Garima Talwar, DDS

Renju Thackenkary, DDS
 Paul Thomopoulos, DDS
 Robert Tigani, DDS
 Stephen Tigani, DDS
 James Tong, DDS
 Keyla Torres, DMD
 Bradley Trattner, DDS
 Margaret Valega, DDS
 Kim-Thi Van-Dinh, DDS
 Robert Vandre, DDS
 John Vanik, DDS
 Devender Verma, DDS
 Prashant Verma, DDS
 Joradan Virden, DDS
 Mark Wagner, DDS
 William Wahle, DDS
 Michael Weber, DDS
 George Whitaker, DDS
 Robin Williman, DDS
 Elaine Wong, DMD
 Christina Woo, DMD
 Anna Wu, DDS
 Jenin Yahya, DDS
 Lobna Zada, DDS
 Stuart Zaller, DDS
 Mehdi Zamani, DDS



FocalPoint

Teledentistry Offers New Way to Deliver Dental Care

BY JANET
YELLOWITZ,
DMD, MPH

When the COVID-19 pandemic swooped in like a hurricane, it disrupted — among many things — how we provided oral health care to patients. It also opened a window for us as oral health professionals to adapt and expand how we use teledentistry.

Defined by the American Dental Association (ADA) in May 2020 as a method of delivery for information and diagnosis through audio and/or visual media, teledentistry swiftly and efficiently connects patients virtually with dental providers and providers with each other.

It can be utilized by practitioners in a variety of ways including through live, two-way interactions between dental provider and patient; transmission (via secure electronic system) of photos, X-rays, or videos; or responses to patient questions (via smartphones, tablets, or other devices). It also allows patients to send a selfie photo of their problem to the dentist.

Throughout the pandemic, teledentistry has allowed practitioners to triage patients for emergency care while reducing the risk of exposure to the virus for caregiver or patient and conserving personal protective equipment

(PPE). By speaking with patients while they are home, providers can assess the patients' need for immediate care, provide strategies to improve their patients' condition, and/or prescribe medications. Used appropriately, teledentistry can save time, eliminate the need for PPE, reduce patient and provider stress, and improve patient outcomes.

In the spring of 2020, the pandemic forced oral health professionals to rethink protocols and develop new ways of ensuring the safety of clinicians and patients.

At the University of Maryland School of Dentistry (UMSOD), a telehealth system was developed through which patients could call a dentist to discuss their current needs. This system used teledentistry extensively to allow patients to discuss symptoms and share existing images with an on-call dentist, as well as to receive professional advice. This helped provider and patient understand the nature of the emergency and identify the best path to resolution.

Pandemic aside, teledentistry offers practitioners opportunities to expand access to care to patients who may have difficulty traveling to the dental office, residents in underserved areas, and uninsured and underinsured individuals.

It also holds the potential to enable practitioners to triage dental patients virtually and help divert patients from emergency departments to dental offices.

Moving forward, a UMSOD committee is exploring ways to further implement teledentistry to enhance patient care and increase efficiency while adhering to all protocols.

The school's Division of Orthodontics, for example, is conducting a pilot program through which orthodontic case presentations are held virtually. During these discussions, the clinician speaks virtually to the patient (or parents) who remain at home or work. Typically, these cases have involved patients of record who already have had images taken.

Clearly, the dental office paradigm has changed — with practices extending their reach beyond the office walls. In the future, it is likely that teledentistry will be a “must have” for every practitioner. **MD**

Yellowitz is director of UMSOD's Special Care and Geriatrics Services Program, chair of the school's committee on teledentistry, and a board member of the Maryland State Dental Association Foundation, which is investigating using teledentistry to divert dental patients from emergency departments to immediate dental care.

Alumni

From the Alumni Association



In recent months, we have seen more and more patients returning to our practices. This corresponds with the increasing number of people choosing to receive a vaccination for COVID-19. As we settle into our “new normal,” I continue to be amazed at the passion and dedication our alumni have for the oral health profession. Together, we are finding our way through the many challenges we face as we continue to emerge from the pandemic.

In April, more than 100 alumni gathered for our Virtual All-Alumni Reunion. The day was kicked off with a coffee reception where Mark A. Reynolds, DDS '86, PhD, University of Maryland School of Dentistry (UMSOD) dean and professor, shared important updates. It was a privilege to recognize our alumni award recipients from 2020 (who were not recognized last year due to the pandemic) and 2021 during a recorded ceremony and live virtual reception. Each of these individuals has left an indelible mark on UMSOD and the oral health profession. We were pleased to celebrate these alumni during our All-Alumni Reunion festivities.

The day's events included the Dr. Harry W.F. Dressel Jr. Memorial Lecture on the delivery of dental care in the era of COVID-19, featuring Louis DePaola, DDS '75, MS '84. We also were excited to celebrate all of our reunion classes, particularly the Class of 1971 — at its 50th reunion. Congratulations to Norman Tinanoff, DDS '71, MS, for helping to rally his classmates for a fun virtual gathering. We hope to see classmates gather in person later this year when it is safe to do so.

The Alumni Association Board of Directors meeting featured an update on our accomplishments this year as well as a presentation from LaShonda Shepherd, DDS '21, and Frederick Flanagan, DDS Class of 2022, the inaugural recipients of the Dean's Scholarship for Leadership & Excellence. Thanks to alumni donors who took part in the annual Socks for Scholarships initiative, each recipient received a \$25,000 scholarship. Your support of the school and its students really makes a difference!

Our meeting also featured a segment on how alumni can become more engaged with our school. One way is through UMSOD Connect, an online mentoring program facilitated through the school's LinkedIn group. This initiative aims to connect students with mentors to provide advice and guidance about residency programs, postgraduate experiences, and working as a general dentist. The program will only succeed with the help of wonderful mentors, like you!

Thank you for the opportunity to serve as president of your Alumni Association. It has been quite an experience to lead the organization during these challenging times. I look forward to introducing Marc C. Nuger, DDS '79, as the incoming president. Dr. Nuger has vast experience leading the dental landscape, both in Maryland and beyond. I am confident that he will be successful in the role. As I complete my term as president, I am filled with pride at the accomplishments of the school, as well as its faculty, students, staff, and alumni. It has been a pleasure serving our alumni community, and I know that there are even greater successes to come.

Best regards,
Shari C. Kohn, DDS '90
President | Alumni Association Board of Directors

For more information about the Alumni Association or events, please contact Nicole Nash, assistant director of alumni relations, at 410-706-3663 or nnash1@umaryland.edu.

If you have news to share, please send it to hselby@umaryland.edu.



Virtual All-Alumni Reunion Draws a Crowd

BY LAURA LEE

A lively combination of online gatherings and real enthusiasm drew nearly 90 alumni from across the country to the University of Maryland School of Dentistry's (UMSOD) 2021 Virtual All-Alumni Reunion.

Held April 16, the day was kicked off with a virtual breakfast featuring welcoming remarks and school updates from Mark A. Reynolds, DDS '86, PhD, UMSOD dean and professor.

"Although the day's events are being held virtually, I'm confident that the conversations we have, the anecdotes we swap, and the connections we make will be as lasting as any we would share at a physical gathering," Reynolds said.

The morning also included an open Alumni Association Board of Directors meeting. Led by Alumni Association President Shari C. Kohn, DDS '90, board members discussed alumni engagement initiatives such as UMSOD Connect, a LinkedIn group that helps pair current students with alumni mentors.

Next up came the Distinguished Alumni Awards Ceremony. Award recipients from both 2020 and 2021 were honored because, due to the COVID-19 pandemic, last year's celebration was postponed. (For a list of winners, please see next page.)

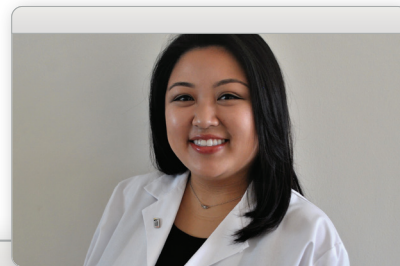
"Although the day's events are being held virtually, I'm confident that the conversations we have, the anecdotes we swap, and the connections we make will be as lasting as any we would share at a physical gathering."

— MARK A. REYNOLDS, DDS '86, PHD

RIGHT, TOP: Hailey Ebue, a member of the dental hygiene Class of '21 and panelist, said her interest in an oral health career was initially sparked by her experiences as a young orthodontics patient.

RIGHT, MIDDLE: Mark Reynolds, UMSOD dean and professor, offered welcoming remarks and an update about the school during the 2021 All-Alumni Reunion.

RIGHT, BOTTOM: As part of a student panel during the All-Alumni Reunion, Justin Tabatabai talked about why he was pursuing a career in oral health and what it was like to attend UMSOD.



Calling the opportunity to congratulate two sets of winners an honor, Reynolds said they "bring great pride to the School of Dentistry and to our profession."

Festivities also included a panel of current students and a resident who discussed what drew them to the oral health professions and described their experiences at UMSOD, and a virtual 50th reunion celebration, which drew nearly 30 members of the Class of 1971.

Additionally, Louis DePaola, DDS '75, MS '84, UMSOD's associate dean of clinical affairs, delivered the annual Dr. Harry W.F. Dressel Jr. Memorial Lecture.

DePaola, the 2021 recipient of the Distinguished Public Service Alumni Award, was instrumental in developing new infection control protocols in response to COVID-19. Saying he was proud to have played a role in keeping patients, students, faculty, and staff safe during the pandemic, he added, "I am honored to have been chosen for the Distinguished Public Service Award for my contribution in this effort." **Md**

Holly Selby contributed to this article.

2020 and 2021 Distinguished Alumni Award Winners

When the COVID-19 pandemic altered nearly all aspects of life just over a year ago, the University of Maryland School of Dentistry was unable to celebrate the 2020 Distinguished Alumni Award winners. This year, we presented the 2020 winners and the 2021 winners at our virtual reunion. Please join us in congratulating all eight winners.

Distinguished Public Service Award

In recognition of a graduate for meritorious professional leadership and service to the School of Dentistry and the community

2020

Edwin L. Morris, DDS '74, ORTHO '76



2021

Louis G. DePaola, DDS '75, MS '84



Distinguished Achievement Award

In recognition of a graduate for significant professional accomplishments in science, dentistry, or education

2020

Paul S. Rosen, DMD, PERIO '88, MS '90



2021

W. King Smith, DDS '65



Linda DeVore Dental Hygiene Award

In recognition of a dental hygiene graduate of the School of Dentistry who represents the integrity, intellectual curiosity, community-mindedness, and leadership epitomized by Linda DeVore, RDH, MA

2020

Jane L. Phillips, RDH, BS '83, MS '12



2021

Dianna S. Weikel, RDH, BS '82, MS '87



Rising Dental Health Leader Alumni Award

In recognition of a graduate from the past 10 years whose accomplishments enhance the perception of the dental profession and who has demonstrated remarkable service to the community

2020

Andrew Swiatowicz, DDS '10, FAGD



2021

Darien J. Weatherspoon, DDS '10, MPH



For biographies of the award winners, please visit www.dental.umaryland.edu/distinguished-alumni.

Get Connected



ARE YOU A UMSOD ALUMNUS WHO RECENTLY GRADUATED FROM A RESIDENCY PROGRAM? WE NEED YOUR KNOW-HOW!

You're invited to join UMSOD Connect, the Alumni Association's new LinkedIn group, through which alumni meet current students while sharing their knowledge about residency programs. If you're interested, please join us at www.linkedin.com/groups/12149632 or by emailing dentalalumni@umaryland.edu.

InMemoriam

Joel D. Greenspan, PhD

Joel D. Greenspan, PhD, former professor and chair of the Department of Neural and Pain Sciences at the University of Maryland School of Dentistry (UMSOD) and founding co-director of the University of Maryland Center to Advance Chronic Pain Research, passed away on Feb. 8.

Dr. Greenspan, who first joined UMSOD in February 1996, retired on Jan. 31, 2021 after a highly accomplished academic career. He was a leader in the field of translational pain research, focusing on the orofacial region, and widely regarded as a pioneer in exploring sex and gender differences in pain and analgesia. He served as a principal investigator of a 14-year, multi-center, National Institutes of Health-funded prospective study of predictive biomarkers for temporomandibular disorder pain. He also co-organized a national workshop that culminated in a highly cited consensus report on the state of the science that served as a guide for future research in this field.



Dr. Greenspan was a valued and deeply respected member of the School of Dentistry community, touching the lives of many through his generosity and willingness to offer mentorship, time, and support to colleagues and students alike. Known for a gentle manner and supportive management style, Dr. Greenspan's effectiveness as a mentor was reflected in the academic and research achievements of his departmental faculty. Further, under his leadership, the department's research portfolio tripled to more than \$15 million over the past five years. **MD**

In Memoriam

We are saddened by the loss of the following alumni, friends, and faculty:

Arthur A. Aria, DDS '48
Valentine R. Bauer, DDS '72
Enrique Blondet, DDS '51
Donald L. Bloum, DDS '64
Joseph P. Bodo Jr., DDS '58
Robert F. Bristol, DDS '59
Robert F. Bobbitt, DDS '74
George J. Boyles, DDS '53
Gene E. Camp, DDS '60
Maureen M. Canion, RDH, BS '76
Mario H. Colecchi, DDS '46
Robert E. Davenport, DDS '73
Raymond Charles Dilzer, DDS '55

David C. Eklund, DDS '69
Arnold S. Feldman, DDS '55
Leo Fishman, DDS '43
William D. Fitzgerald, DDS '61
Jeffrey W. Foster, DDS '87
Marvin L. Friedman, DDS '56
Robert A. Gagne, DDS '56
Billy W. Gaskill, DDS '59
Alan P. Girard, DDS '65
Lawrence F. Halpert, DDS '62
Ronald F. Hanswirth, DDS '65
James R. Harms, DDS '81
Joel Hirschberg, DDS '66
John J. Jordan, DDS '64
Jerry L. Klein, DDS '66
Robert C. Knowlton, DDS '44
Paul B. Lavine, DDS '79
Marvin P. Levin, DDS '60
Jerome J. Linsey, DDS '72

Stanley M. Lipman, DDS '43
Peter Low, DDS '67
Joseph R. Marchesani, DDS '61
John E. Markel, DDS '45
Joseph D. Mechanick, DDS '62
Martha M. Moskowitz, RDH, BS '89
Robert P. Padousis, DDS '64
Stanley M. Plies, DDS '64
Albert E. Postal, DDS '59
Joseph Alfred Rapuano, DDS '57
Lawrence A. Ross, DDS '74
Joseph P. Russo, DDS '73
Mildred M. Sampson, RDH, BS '78
Cancio A. Santiago, DDS '49
Stephen N. Sovich, DDS '65
Leon F. Smith, DDS '77

Louis E. Snyder Jr., DDS '61
Howard G. Rosenberg, DDS '67
C. Parke Scarborough III, DDS '77
Henry J. Van Hassel, DDS '63
George W. Waxter Jr., DDS '57
Charles P. White, DDS '45
Hans Richard Wilhelmsen Sr., DDS '55, MD
Kathleen G. Whitelock, RDH
Raymond D. Zipkis, DDS '72
Charles H. Zois, DDS '65

*The school learned of the passing of these alumni, faculty, and friends between Sept. 22, 2020, and April 12, 2021.

GameChanger

UMSOD Professor Stone Rises as Leader in Field of Acoustics

BY PATRICIA FANNING

Ask Maureen L. Stone, PhD, what octopus tentacles, an elephant's trunk, and a patient's tongue have in common. Each is a muscular hydrostat, she will explain, a deformable, bone-free, biological structure ideal for its tasks. She should know: Her research on motor control of the tongue and vocal tract during speech has propelled her into a leadership role in the field of acoustics.

Stone, a professor at the University of Maryland School of Dentistry (UMSOD), will serve until June 2022 as president of the Acoustical Society of America (ASA). With a worldwide membership of 6,800, ASA is the premier society for the science and technology of sound, encompassing disciplines from sonar to musical instruments. Stone says she once watched an ASA member demonstrate the making of a violin.

Coincidentally, speech production — a primary task of the human tongue — is taken for granted and remains mostly hidden. Stone says that the subconscious aspect is crucial. Everyone, including oral cancer survivors, should be able to talk without thinking about articulation.

"It is important that we can speak automatically," says Stone, a professor in the UMSOD departments of Neural and Pain Sciences and Orthodontics and Pediatric Dentistry who directs the Vocal Tract Visualization Laboratory. It conducts research on the tongue and surrounding structures that

shape the speech signal.

"You have redundancy in the system, neurologically and muscularly. So, if two people, who speak the same dialect, say the same word, do they say it in the same way? Or, are there a lot of options?" Stone asks.

She perceives that many people, in speaking, use the bigger muscles of the tongue fairly similarly and then differ in use of the smaller ones. It depends on anatomy. "Do you have a high palate or a low palate? Do you have a big tongue for your bony structures or a small tongue? All these kinds of things count," she says.

Hidden no longer, the motion of speech can be depicted and measured thanks to innovative technology developed by Stone's lab. The Maryland Tongue Analysis Package is software that scholars and clinicians can download for use with ultrasound images of the tongue.

Mark A. Reynolds, DDS '86, PhD, dean and professor at UMSOD, describes Stone as a pioneer. "Prior to her work in ultrasound, no one used this technique to study tongue motion. Now it is seen as a breakthrough technique to study speech articulatory motions, used both by linguists out in the field and by speech pathologists in the clinic."

The lab also collaborates with engineers and radiologists at the University of Maryland Medical Center to deploy the latest magnetic resonance



imaging (MRI) techniques such as Cine MRI and tagged MRI. These images benefit oral cancer patients who undergo tongue surgery (glossectomy); research can inform surgeons in selecting a graft, flap, or ordinary suturing as an optimal closing method and guide the design of prostheses that function much like a retainer. Overall, the goal is to restore normal speech.

How people talk differs from what scientists once presumed. Among Stone's more than 100 peer-reviewed publications is one debunking a theory that when we speak our words are separated by silence. As Stone and a co-author make clear, the overlapping sounds of speech are like a flowing stream, not steppingstones.

Now ASA president, Stone brings her expertise to an international association emerging from the pandemic. One positive has been an enthusiastic adoption of remote technology, with monthly webinars on subjects ranging from echolocating bats to the concept of a soundscape. Stone says she aims to improve the fiscal sustainability of ASA and to encourage greater diversity among those who enter the vital field of acoustics. **MJ**

UMSOD Continuing Education Courses

Due to the COVID-19 pandemic, all in-person courses have been postponed.

We invite you to take advantage of the following live webinars featuring many new speakers and topics.

We continue to offer the UMSOD Implantology Continuum Course (two-year course) beginning Aug. 23, 2021.

July Courses

- Dental Sleep Medicine and Temporomandibular Disorder (TMD) and Why It's Important to Your Practice
- The Double-Edged Sword of Sedation: Understanding the Power That You Wield
- Endogastriitis: Causes and Cures
- Panoramic Re-Primer

August Courses

- Clinicopathologic and Radiographic Correlation in Clinical Oral and Maxillofacial Pathology and Oral Medicine
- Marijuana Legalization and the Modern Dental Practice: Ethical and Medical Considerations for Treatment Planning
- Digital Dentistry: Novelty or Necessity?
- Most Common Oral Lesions: What You Need to Know in Oral Pathology, Oral Medicine, and Oral Radiology