

UBDentist

NEWS FROM THE UNIVERSITY AT BUFFALO SCHOOL OF DENTAL MEDICINE

WINTER 2025



STRENGTH UNDER PRESSURE

Meet two remarkable students
who turned hardship into a reason
to keep moving forward. PG. 10

Dear Members of the University at Buffalo Dental Alumni Association,

Welcome to another issue of UB Dentist! As the president of the UB Dental Alumni Association, it is my privilege to share and celebrate the amazing work of our alumni, students and entire School of Dental Medicine community.

The Dental Alumni Association's mission focuses on three key areas: supporting the School of Dental Medicine, empowering our current students, and strengthening the relationships among our alumni. Our work is rooted in our commitment to advance the excellence and innovation that define our alma mater.

Across all our initiatives, we keep our support for the dental school at the center of what we do. Whether through advocacy, collaboration or investments like the recent million-dollar UB Dental Alumni Endowment, we aim to help the SDM continue to lead in dental education, research and clinical care. You'll see many examples of this throughout the stories featured in this issue.

But above all, what we take most seriously is the role we play in our students' lives. We are committed to helping them thrive by offering mentorship, scholarships and opportunities for professional growth. As alumni, we know better than anyone how demanding dental school can be; if we can play a part in helping students succeed, everyone wins.

Speaking of our students: This issue highlights the stories of two incredible women who have demonstrated remarkable strength under pressure when faced with serious medical issues

in their D2 year. Their resilience and tenacity are a reminder that dental school isn't just about the grades and clinical requirements. It's about finding the courage to keep pushing forward, even when things get hard. I know all of us can remember that feeling from when we were students.

As we kick off another year, I invite you to get involved with our association by attending an event, mentoring students or reconnecting with fellow alumni. Your involvement is essential to fulfilling our mission and our efforts to maintain a strong, engaged and impactful community!

Thank you for your continued contributions to our alumni network, the school and the dental profession.

Warm regards,



Joe DeLuca, DDS '07
President, University at Buffalo Dental Alumni Association



FROM THE ALUMNI ASSOCIATION PRESIDENT

As alumni, we know better than anyone how demanding dental school can be; if we can play a part in helping students succeed, everyone wins.

ON THE COVER:

Morgyn Maresco, '27, and Ashley Turner, DDS '25, in the postgraduate clinic, Dec. 2025.

Photo by Douglas Levere

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News from the University at Buffalo School of Dental Medicine

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1 Three oral biology faculty members recognized on international stage



DR. PATRICIA DIAZ



DR. HYUK-JAE (EDWARD) KWON



DR. FRANK SCANNAPIECO

BY LAURIE KAISER

Three faculty members in the Department of Oral Biology were recognized among a cadre of top researchers at the International Association for Dental, Oral and Craniofacial Research (IADR) General Session and Exhibition held in June in Barcelona, Spain.

Patricia Diaz, DDS, PhD, Sunstar Robert J. Genco Endowed Chair and Empire Innovation Professor of Oral Biology, received the 2025 IADR Distinguished Scientist Research in Oral Biology Award for her extensive research of the oral microbiome.

Hyuk-Jae (Edward) Kwon, DDS, PhD, associate professor of oral biology, received second place in the 2025 IADR Joseph Lister Award for New Investigators for his study of how the gene *KMT2D* affects the development of tooth enamel.

Frank Scannapieco, DMD, PhD '91, Perio. Cert. '89, SUNY Distinguished Professor of Oral Biology, received the 2025 IADR Distinguished Scientist Award in Geriatric Oral Research for his research in and advocacy for the dental health of older adults.

"I am exceptionally proud of these valued members of our faculty," said Marcelo Araujo, DDS, MS '99, PhD '03, dean of the dental school. "This international recognition highlights the success of three individuals at distinct stages in their academic careers."

Stefan Ruhl, DDS, PhD, professor and chair of the Department of Oral Biology, added, "Having three members of our department recognized on the international stage makes us incredibly proud. Their success is a source of inspiration and serves as a strong motivation for our younger colleagues and trainees."

HIGHLIGHTING CRUCIAL ROLE OF THE ORAL MICROBIOME

Diaz, who joined UB in 2020, also directs the UB Microbiome Center. Diaz's laboratory was one of the first to apply high throughput DNA sequencing to characterize the oral microbiome communities in homeostasis and disease.

Diaz served as co-principal investigator in 2022 for two projects funded by \$7.8 million in grants from the National Institute of Dental and Craniofacial Research (NIDCR). In conjunction with Roswell Park Comprehensive Cancer Center and the Albert Einstein College of Medicine, she has explored the influence of the oral microbiome on both the risk of developing oral thrush during cancer treatment and the risk of infection with cancer-linked human papillomavirus (HPV) among people with HIV.

Over her career, Diaz has co-authored 61 peer-reviewed publications that have more than 9,777 citations and an H-index of 45 (Google Scholar).

The Research in Oral Biology Award is one of 17 IADR Distinguished Scientist Awards and one of the highest honors the IADR bestows.

UNRAVELING THE MYSTERY OF WEAKENED TOOTH ENAMEL

The IADR Joseph Lister Award for New Investigators recognizes researchers within their first 10 years of academic appointment.

Kwon, who joined UB in 2017, was honored for his pioneering study of tooth enamel and the role the gene *KMT2D* plays in dental anomalies and genetic disorders.

To better understand how the *KMT2D* gene works, Kwon and his research team genetically engineered mice with the gene turned off in the cells that form enamel and identified eight genes directly regulated by *KMT2D*, all of which play essential roles in forming healthy enamel.

An article outlining their work, "*KMT2D* Regulates Tooth Enamel Development," was published in the July 2025 issue of the Journal of Dental Research.

Overall, Kwon's research, which is supported by the National Institutes of Health (NIH), centers on the genetic and epigenetic regulation of mammalian dental and craniofacial development with a particular focus on the molecular mechanisms underlying congenital dental and orofacial anomalies.

FOCUSING ON DENTAL NEEDS OF GERIATRIC POPULATION

Scannapieco, a periodontist and microbiologist, has conducted extensive research in the interactions between saliva and bacteria, the relationships between oral and systematic disease, and the health needs of older adults.

It was the latter that garnered him the Distinguished Scientist Award in Geriatric Oral Research, which is one of 17 IADR Distinguished Scientist Awards. Throughout his career, Scannapieco has received more than \$13 million in grants, mostly from NIH, and has published nearly 200 research articles, books and book chapters.

This is the second time that Scannapieco has won a Distinguished Scientist Award from the IADR. The first was in Oral Biology in 2019.

2 UB School of Dental Medicine and STEP collaborate to inspire young researchers

BY EDWARD MORRISON

In August, the School of Dental Medicine and UB's Science and Technology Entry Program (STEP) partnered to spark curiosity and open doors to research for precollegiate students through the annual "Welcome to Research" Day held on UB's South Campus. This impactful collaboration, now in its second year, introduces young students to the dynamic world of oral biology research, fostering a passion for science and building a foundation for future careers.

Initiated in 2024 through a connection between Kathryn Kauffman, PhD, assistant professor in the Department of Oral Biology, Ramelli Choates, PhD, senior associate director of the Cora P. Maloney Center, and Dawn Cobb, director of STEP, the event aims to make research accessible and inspiring. Students engage with cutting-edge science through laboratory demonstrations, such as microbiology experiments in Dr. Kauffman's lab and electron microscopy images from the South Campus Instrument Center, which is

directed by Peter Bush. This year's event expanded to include the lab of Praveen Arany, DDS, PhD, associate professor in the Department of Oral Biology, and the Dental Materials Research Lab, directed by Steven Makowka, showcasing diverse research areas like biomedical sciences and clinical applications.

The collaboration provides STEP students with a unique opportunity to explore research environments, connect with mentors, and develop skills in scientific inquiry. By fostering confidence, community, and curiosity, the program helps students envision themselves as future scientists. "We love meeting the students and welcoming them into our home away from home – the lab. We learn from them, they learn from us. It's a learn-learn situation and we all win," says Kauffman.

"Welcome to Research" Day aligns seamlessly with the dental school's strategic plan, advancing its education, innovation, and community imperatives. It fosters inclusive academic experiences to prepare young



PHOTOS BY CASS MCALLISTER

learners for careers in oral health, inspires innovative research by introducing students to diverse scientific pathways, and strengthens community connections with the goal of creating pathways into academic, research, and dental professions.

This partnership not only enriches students' academic journeys but also diversifies the future scientific workforce, ensuring a lasting impact on our community.

3 Class of 2026 Match Day: Built at UB. Matched for greatness.

BY EDWARD MORRISON

Smiles, cheers, and pride filled the Harriman Ballroom on Jan. 21 as the Class of 2026 gathered to celebrate National Match Day, an important milestone marking the next step

in their professional journey. Surrounded by classmates, faculty, staff, and friends, students shared the excitement of learning where they will continue their dental training. This moment was the culmination of years of rigorous education, clinical training, mentorship and service.

"As our graduates move on to advanced training programs across the country, they do so with the skills, compassion, and confidence to make a meaningful impact on the communities they will serve," said Dean Marcelo

Araujo, DDS, MS '99, PhD '03. "Their success reflects not only their talent and dedication, but also the excellence of a UB School of Dental Medicine education. We are very proud of their accomplishments and excited to see how they will shape the future of oral health." ----->

WATCH A RECAP OF MATCH DAY!



PHOTOS BY DOUG LEVERE

NAME	PROGRAM NAME/ PRIVATE PRACTICE	LOCATION
Danielle Sudell	GPR Northwest Health	Portland, OR
Dora Schaeffler	GPR St. Charles Hospital	St. Charles, MO
Rachel Steffan	Boston Children's/Harvard PEDS	BOSTON, MASS
Laura Huff	GPR - RCH	Evansville, IN
Megan Schermack	Private Practice	Highlandville, KY
Jenna Hauer	AEOP - Spectrum Dental	Harrisburg, PA
Graciela Grammatz	Cleveland VA	Cleveland, OH
Christopher Long	GPR @ OHU	Portland, OR
Leila Jazayeri	Private Practice	Pittsburg, PA
Onibe Schrier	Dentodontics	Buffalo, NY
Brianna Doster	one - Strong Health	West Bank, NJ
Isabella Ortega	GPR - Spectrum Dental Hospital	Rockville, MD
Lea Safford	CW Dentodontics	Denver, CO
Julia Dobas	Lab @ Case Western Reserve	London, OH
Lauffen Bortz	GPR VA	Delaware, DE
Emily Gola	GPR VA Pittsburgh	Pittsburgh, PA

4 Q&A with Dr. Scannapieco: Oral health care challenges facing older patients

While older adults are keeping more of their natural teeth than previous generations, they still face greater oral health challenges than their younger counterparts. And this can negatively impact their overall health.

Untreated decay and periodontal disease may contribute to serious health problems that affect the body, including heart disease, pneumonia, chronic obstructive pulmonary disease (COPD), diabetes, and even Alzheimer's disease, notes **Frank Scannapieco, DMD, PhD '91, Perio. Cert. '89**,

SUNY Distinguished Professor of Oral Biology.

For more than 30 years, Scannapieco has studied the connection between oral bacteria and systemic disease, especially in older adults.

Scannapieco, who recently received the 2025 International Association for Dental, Oral and Craniofacial Research

(IADR) Distinguished Scientist Award in Geriatric Oral Research, maintains that providing basic dental care for older Americans would improve outcomes for a variety of systemic diseases and reduce health care costs.

To bring this idea closer to reality, Scannapieco is working with a national organization advocating for Medicare to cover dental care.

Scannapieco discusses his research, his advocacy work, and the importance of providing dental care throughout the later years.



DR. FRANK SCANNAPIECO

Q When did you first become interested in older adults' dental care?

It wasn't intentional. I started my career as a microbiologist and then decided to become a periodontist.

When I came to the oral biology PhD program at UB in the 1980s, I was studying the oral cavity and how bacteria colonize the mouth. I put two and two together and thought the mouth might be a reservoir by which bacteria could enter the lungs to cause pneumonia. This was a time when physicians

weren't really looking at the mouth as a reservoir for infection.

When I started studying the connection between the two, it led to my appreciation of how oral health can really impact elderly people.

I practiced periodontics at the dental school for 30 years, and most of my patients were in their 60s or older. This is because periodontal disease is a cumulative disease. By the time you know you have it, you're typically in your later years.



Q How do periodontal disease and tooth decay lead to other diseases?

Cardiovascular disease, diabetes, and Alzheimer’s disease all have inflammatory components that propel them. Also, if you have gum disease, you have ulceration of your gingival tissue, which permits bacteria into your blood.

There are plausible explanations that connect periodontal disease with cognitive impairment and Alzheimer’s disease. The association may be direct, such as invasion of the brain by oral bacteria

or decreased central neuron signaling from periodontal ligaments, or they may be indirect, such as elevated systemic inflammatory load or dietary effects that arise from the inability to chew due to compromised teeth.

There are multiple risk factors for all of these diseases, however. I would never argue that it’s gum disease alone that’s causing these problems.

Q What is your current research with Alzheimer’s disease?

I’m a co-investigator on a five-year project funded by the NIH awarded to Irene Yang, a nursing professor at Emory University, looking at the connection between oral bacteria and Alzheimer’s disease.

I’m helping develop oral examination and sampling protocols from the patients she’s recruiting with early stages of the disease. The study will compare the oral microbiome of individuals with and without periodontal disease and identify associations among periodontal disease, microbiome features, systemic inflammation, neuroinflammation, and cognition.

It was always thought the brain

was sterile, that the blood brain barrier served as this roadblock to anything getting into the brain. Now, there is some suggestion that bacteria or products of bacteria can get into the brain to stimulate inflammation, which can lead to Alzheimer’s.

Q What are the biggest barriers to dental care for older adults?

It mostly comes down to money. When people retire and no longer have health insurance through their employer, they usually lose their access to professional dental care unless they can afford to pay out of pocket.

Medicare, which you qualify for at age 65, does not cover dental care. I’m involved with the Coalition for Oral Health Policy, which is a group of people from multiple arenas who are interested in bringing dental care to older adults. We’re focusing on trying to get Medicare to help pay for it. When Medicare was founded in the 1960s, dentistry was not included. The dental community wasn’t at the table.

If Medicare would pay for two cleanings a year, an X-ray, and simple fillings, this would save

money and help older people’s quality of life. There have been studies using insurance databases that show that people who have gotten more dental care have lower risk for various poor health outcomes, which can save money.

Also, lack of basic dental care is a big issue for seniors living in facilities such as nursing homes. Many patients often don’t even have their teeth brushed because there’s little training for nurses and nursing assistants who are already pressed for time.

This is more than just a hygiene problem. Bacteria that make a home in the mouth can then be aspirated or inhaled into the lungs, causing serious infections, including pneumonia.

Tooth brushing and regular dental care sound like simple preventative strategies, but they require widespread education and buy-in not only from caregivers like nurses and nursing aides, but also from attending physicians, nursing home managers, and ultimately, insurance providers.

Overall, we know that poor oral hygiene is a major problem for older adults. Yet for many reasons, it’s often ignored.





Honoring his legacy: Dr. David H. Brown Award



David H. Brown, DDS '83, touched countless lives as a clinician, educator, mentor and friend. A proud graduate of the UB School of Dental Medicine Class of 1983 and a full-time faculty member for over two decades, Dr. Brown was known for his empathy, humor and open door. His generous spirit and dedication to others made a lasting impression on all who were lucky to know him.

Dr. Brown passed away on March 19, 2025, after nearly four decades of courageously living with oral/head and neck cancer. The Dr. David H. Brown Award has been established to recognize a student who demonstrates outstanding scholarship and/or community service — values Dr. Brown embodied throughout his life and career.

Together, we can celebrate Dr. Brown's life and extend his impact to future generations of dental students.

SCHOLARSHIP
COMMUNITY
SERVICE

MAKE A **GIFT**
IN **DR. BROWN'S**
MEMORY

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Ming Shih Levine Fund established to educate endodontists of the future

For over 40 years, Dr. Ming Shih Levine devoted her career to the art, science, and teaching of endodontics. A respected educator, clinician and leader, she inspired the best from the generations of students she trained at the University at Buffalo School of Dental Medicine.

Dr. Levine was born in Nanjing, China. Following World War II and the Chinese Civil War, her family moved to Taiwan. There she graduated from National Taiwan University as the top student in her dental class. She earned her master's and certificate in endodontics from The Ohio State University, then held endodontics instructor positions at the University at Buffalo and, later, Harvard University.

Dr. Levine joined the UB dental school faculty in 1975, and by age 40 became chair of the

Department of Endodontics. She was invested in broader service and outreach, working for years with the Buffalo VA Hospital and leading overseas dental education initiatives to Taiwan and China. During her long tenure at the UBSDM, Dr. Levine trained over 100 skilled and compassionate endodontists who are active throughout the international community today.

To honor Dr. Levine's memory, her son, Joseph, has established the Dr. Ming Shih Levine Scholarship. This annual award will support a postgraduate endodontics student who has demonstrated excellence in the clinical practice or teaching of endodontics. Through this scholarship, Dr. Levine's commitment to the highest quality in endodontics clinical care and education will live on for generations to come.

**DONATE TO THE
MING SHIH LEVINE FUND**

Please contact Neil Dengler, senior director of advancement, at 716-881-7486 or ndengler@buffalo.edu.

EDUCATION
MENTORSHIP





STRENGTH UNDER PRESSURE

Meet two remarkable students
who turned hardship into a reason
to keep moving forward.

ASK ANYONE who's been through dental school, and they'll agree: It's tough.

Between the long hours, high-pressure moments, and intense curriculum, dental school pushes every student to the limit, even under the best circumstances. Now imagine receiving a life-altering diagnosis on top of it all.

Meet **Morgyn Maresco**, Class of 2027, and **Ashley Turner**, DDS '25, a first-year pediatric dental resident, two remarkable young women who were diagnosed with serious health conditions in the middle of dental school.

At a time when most students are focused on their courses and clinic, Morgyn and Ashley navigated the unimaginable and never once gave up. Their stories remind us that dental school isn't just about grades and requirements. It's about grit, resilience, and the drive to push forward.

STORY BY SARAH SMYKOWSKI | PHOTOS BY DOUGLAS LEVERE

“Don’t forget to have a life outside of school, because you only have one life to live.”

— Morgyn Maresco

Morgyn Maresco, third-year dental student, Long Island, NY

Morgyn Maresco came into this world fighting — her first moments of life involved a dramatic resuscitation. At just a few minutes old, Morgyn made it clear that she would never give up, a quality that has stayed with her since the start.

Morgyn knew she wanted to be a dentist at age 4. Yet, her path to dental school wasn’t easy. She took three gap years after undergrad, completed a master’s program, and worked as a dental assistant in a private practice. “I’ve never given up on anything I’ve dreamed about,” she says.

Morgyn enrolled at the SDM in fall 2023. At first, her D1 year was like any other student’s. Soon, however, something seemed off; she didn’t feel like herself. Then came the full-body rashes, followed by ongoing respiratory issues. The unexplained flare-ups caused her to miss class and struggle to stay focused.

Morgyn’s health issues persisted in her D2 year, which is notorious for an increased workload and long hours in the sim lab. Morgyn was in the hardest year of dental school with fewer and fewer good days and no answers from her doctors.

At the beginning of the spring semester, Morgyn found a lump in her neck. Her doctor sent her for imaging.

By now, Morgyn was used to dividing her time between doctor’s appointments and school, even remarking to the technician that she had to be back by 1 p.m. for her rotation. When the tech returned and asked her to call someone for support, Morgyn knew she was about to get bad news.

The scan identified multiple masses throughout her neck and chest, leading to a diagnosis of Stage 2 Hodgkin’s lymphoma, a cancer that affects two or more groups of lymph nodes. In Morgyn’s case, the affected lymph nodes were above her diaphragm, which led to a good prognosis.

Morgyn asked her oncologist the standard questions about treatment plans and outcomes. Then, she asked the question that would define her journey: “Can I stay in school while undergoing treatment?”

Yes was the only answer she would accept. Staring down a cancer diagnosis, Morgyn’s drive to fight kicked in. “I needed to at least try,” she says. “I didn’t want to take a leave of absence not knowing if I could’ve done it and regretted it later.”

Morgyn, her oncology team and the dental school made it work. Biweekly treatments were planned to minimize the impact on her body and school schedule. In the end, she only took off every other Thursday afternoon and Friday. Morgyn adapted her approach to her coursework based on how she felt, but somehow managed to get it all done.

Morgyn recalls the gestures from faculty and classmates that helped her navigate this difficult time. One faculty member came in over spring break so she could take an endo competency that was scheduled during a treatment; classmates delivered food and provided judgement-free support. Morgyn learned not to compare herself to others — difficult to do in a competitive program — and to let herself rest.

After completing chemotherapy, Morgyn returned for her D3 year this past fall with a new perspective: “Don’t forget to have a life outside of school, because you only have one life to live,” she says. She also has a deeper sense of compassion for patients, knowing firsthand the fear and discomfort they may feel.

Morgyn is now in remission and notes that her life has, in a way, changed for the better: “After going through cancer, you’ll never be the person you were again. I feel like me, but a better me than who I was before.”



Ashley Turner, DDS '25, MS, first-year pediatric resident

Nothing about Ashley Turner's path to dentistry has been linear, but that's never stopped her. While many students start their DDS program after undergrad, Ashley entered the workforce and found success in corporate America instead.

It wasn't fulfilling. She wanted to live a life of service, and becoming a dentist would allow her to do that. She started dental school in her late 20s, with 10 years of career experience, a master's degree and a plan to serve others.

Then, she received a medical diagnosis that changed her entire life. It started with numbness in her right arm and, periodically, her leg. Ashley, then a D2, met with various doctors to determine the cause while also balancing her studies.

Fast forward to finals week. Ashley fit in an MRI before a final. By the time the exam was over, her doctor was calling.

Ashley had moyamoya disease, a rare condition that narrows major blood vessels in the brain. The progressive disease can lead to strokes, seizures, and physical and cognitive impairments.

"I struggled to cope with the diagnosis, but the prognosis was promising," she recalls. At the time, her only treatment option was an open craniotomy, which took place in the summer after her D2 year, right in the middle of her dental training.

While the surgery was a success, she suffered post-operative complications that involved a year-long recovery.

Ashley needed months of speech, physical and occupational therapy. She worked on buttoning clothes, cooking skills and word-picture association. The challenges in regaining her hand skills were eye-opening.

"One day during my recovery, I stood in front of the mirror and felt plaque on my teeth," she says. "I remember thinking, 'I know how to brush my teeth. I've taught patients how to brush.' In that moment, I couldn't brush the way I needed to because of my cerebrovascular event."

During her journey, Ashley leaned heavily on her faith to see her through, which gave her assurance that she would be OK.

Slowly, Ashley found her way back to herself. That meant returning to dental school full-time.



One full year after her diagnosis, she was back at the SDM as a D3 student.

She jumped in headfirst, but life was different from what she was used to. While her dexterity and cognitive functioning were strong, she noticed an effect on her academic performance. She received support from faculty to complete her courses successfully and also from classmates and mentors who offered prayers and understanding.

Ashley, always a high performer, had to learn to accept her new normal, noting that her support system — particularly, her mother, grandmother, husband and church family — helped keep things in perspective.

This perspective also changed her approach to patient care.

"My health challenges and recovery have shaped me as a clinician," she says. "I have a new level of compassion for patients and a deeper understanding of the challenges they face."

Ashley graduated with her DDS in 2025 and entered the SDM's pediatric dental residency program the following fall. It's an amazing comeback for someone who, just two years ago, was practicing how to button clothes. Today, Ashley feels healthy and appreciates who she is now. She often says she is "blessed."

Through her experience, she learned to take life one day at a time, making the best of any challenges thrown her way: "You can't give up on your hopes," she says. "Take it from me." **UBD**

"I have a new level of compassion for patients and a deeper understanding of the challenges they face."

— Ashley Turner

Oral biology postdoc to examine periodontal disease through AI lens

BY LAURIE KAISER

LU LI, PHD, a postdoctoral associate in the Department of Oral Biology, was recently awarded a \$993,098 Pathway to Independence Award (K99/R00) from the NIH to support his research in employing AI to better understand periodontal disease and progression. The K99/R00 award funds a five-year study that will utilize an AI subset known as machine learning to study bacterial communities in the mouth collected from more than 2,600 individuals, some of whom were followed over a five-year period.

"This work will uncover novel patterns in oral microbial ecology, improve our ability to predict periodontitis progression, and lay the groundwork for personalized prevention and treatment strategies," explains Li, who works in the laboratory of his mentor, Patricia Diaz, DDS, PhD, Sunstar Robert J. Genco Endowed Chair and Empire Innovation Professor of Oral Biology.

K99/R00 awards are designed for promising postdoctoral scientists seeking to complete mentored research that will facilitate their transition to a tenure-track or equivalent faculty position.

"It's a prestigious grant," Diaz says. "Lu is the first postdoctoral associate in the dental school to receive it."

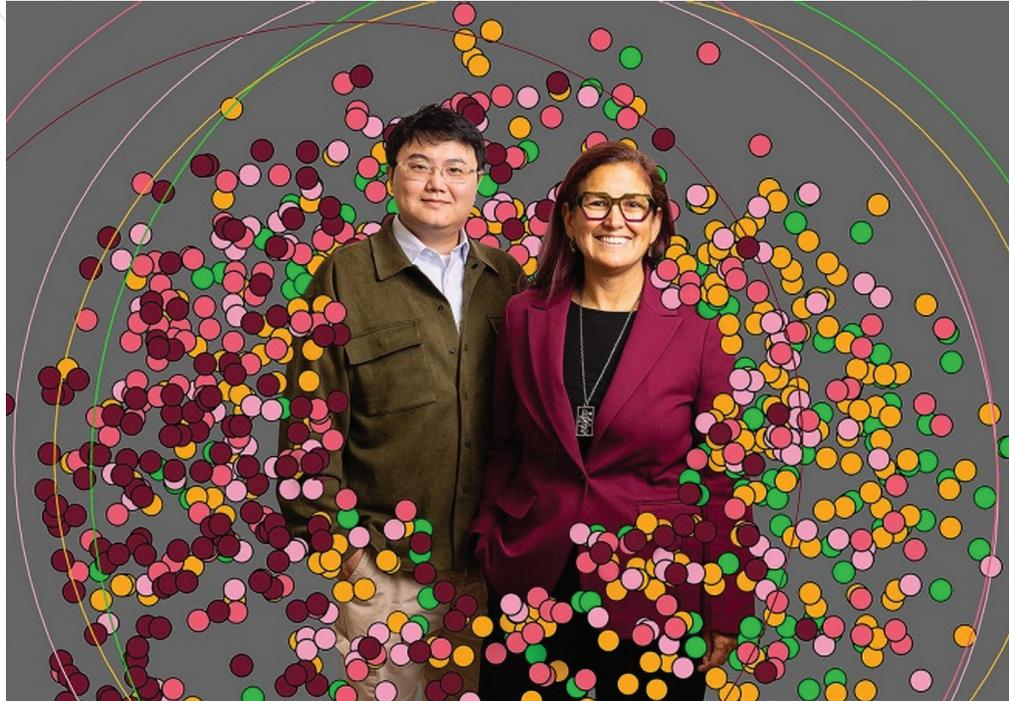
Li is using manifold learning, a type of advanced machine learning that turns complex, high-dimensional data into a simpler form while keeping important patterns and features to help construct microbiome landscapes. They will serve as a "map" showing different types of bacteria linked to periodontitis in individuals and help predict the ones who will get worse over time.

The other members of Li's mentorship committee are Jean Wactawski-Wende, PhD, SUNY Distinguished Professor in the Department of Epidemiology and Environmental Health and dean of the School of Public Health and Health Professions, and Michael Buck, PhD, professor and director of Genetics, Genomics and Bioinformatics in the Department of Biochemistry in the Jacobs School of Medicine and Biomedical Sciences.

WORK UNDER MENTORS, THEN INDEPENDENTLY

The grant is divided into two phases. In the first phase, Li will work with his mentors to study dental plaque samples of participants in two major projects: the Buffalo Myocardial Infarction (MI) Perio Study and the Buffalo OsteoPerio Study.

The former, led by the late UB dental researcher Robert Genco, DDS, PhD, SUNY Distinguished Professor of Oral Biology, Periodontics and Microbiology, studied the connection between periodontal disease and



LU LI (L) AND MENTOR PATRICIA DIAZ (R). IMAGE CREATED BY DOUGLAS LEVERE.

recurring cardiovascular events. The latter, led by Wactawski-Wende and Genco, studied the association between osteoporosis and periodontal disease in older women, following individuals over five years.

The second phase of the grant is focused on independent research, and Li says he plans to examine oral bacteria at the strain level.

"Ultimately, this could lead to more precise ways of predicting which patients are at higher risk and open the door to personalized strategies for preventing and treating periodontitis," he says.

DRAWN TO THE STUDY OF THE MICROBIOME

Li joined Diaz's lab shortly after earning his PhD in computer science from UB in 2021. He says he was drawn to the study of the microbiome.

"This opportunity opened a new door for me to apply my computer science techniques into such an amazing field to help solve real-world problems and improve human health," he says.

Li says that many of the advances made in machine learning have not yet been applied to biomedical fields, and the tools that do exist are often not tailored to the unique challenges inherent in microbiome research.

"I see my role as bridging this gap by developing advanced, customized algorithms that can help us understand these complex data in ways that were not possible before," he explains. "With this grant, we now have the opportunity to dig deeper into the data and create new tools that can take our understanding to the next level."

This story has been edited for length.

UB is part of joint \$17 million NIH grant to study temporomandibular disorders

BY LAURIE KAISER

UB RESEARCHERS are participating in a \$17 million multi-institution study funded by the NIDCR to better understand temporomandibular disorders (TMDs) and develop more effective treatments.

The five-year study, Collaborative for REsearch to Advance TMD Evidence (CREATE), involves nine institutions across the country. It is part of the TMD Collaborative for IMproving PATient-Centered Translational Research (TMD IMPACT), which is the largest collaborative NIH study to date focusing on TMDs. This is an umbrella of some 30 debilitating conditions of the jaw and surrounding muscles that affect 10% of the adult population, with females representing the majority of sufferers.

CREATE researchers will analyze data from 1,000 individuals with TMDs and 300 TMD-free controls across five sites, employing standardized batteries of clinical and behavioral experimental measures, including pain of the jaw joint or muscles, overlapping pain, psychological issues and sleep.

TMDs ARE COMPLEX DISORDERS

"The causes of TMDs are still not completely understood," says Richard Ohrbach, DDS, PhD, professor of oral diagnostic sciences who serves as the principal investigator on the UB study with Sonia Sharma, PhD, assistant professor in the Department of Medicine in the Jacobs School of Medicine and Biomedical Sciences. Both are TMD disease clinical specialists and pain management experts and serve on the multi-PI

team for the CREATE project. Barry Smith, PhD, SUNY Distinguished Professor in the Department of Philosophy and director of the National Center for Ontological Research (NCOR), is also participating in the UB study and with Ohrbach will co-direct the Bioinformatics and Data Science Core at UB.

"When pain disorders are complex, difficult to diagnose and affect essential behavioral functions, people with these disorders often suffer from additional problems: stigma, difficulty in finding adequate health care, complications from inappropriate treatment, denial of needed services, and even obtaining a medically correct diagnosis," Ohrbach explains. "Through this study, we aim to help provide better diagnosis, as well as address prevention techniques, develop effective and personalized therapies and expand the research workforce."

A 'CRITICAL MASS OF IDEAS'

The grant was approved in September and will be disseminated to researchers in a cross-section of disciplines, including bioinformatics, biomedical engineering, data science, epidemiology, health care implementation, joint mechanics, neuroscience, ontology and pain.

"It brings together a critical mass of ideas and creates possibilities that never would have existed otherwise," Ohrbach says.

The project's other principal investigators are Alejandro Almarza and Michael Gold at the University of Pittsburgh; Yenisel Cruz-Almeida at the University of Florida; and John Neubert at Texas

“It brings together a critical mass of ideas and creates possibilities that never would have existed otherwise.”

— DR. RICHARD OHRBACH

A&M. Other partnering institutions are Missouri State, UT Health Houston, Colorado State University, HealthPartners Institute, and the TMJ Association, a patient advocacy organization.

ESTABLISHING BIOMARKERS OF PAIN

UB's bioinformatics team will establish a set of core ontological definitions starting with seemingly simple terms such as "pain" and "injury." It will then extend this process to the entire TMD disease realm, including diagnosis and treatment.

"Our work on ontological definitions will apply equally to a range of similar pain conditions, such as back pain, headache and pelvic pain — collectively known as Chronic Overlapping Pain Conditions (COPCs) — to which TMDs also belong," Smith says.

As one of the 10 COPCs, TMDs significantly impact pain outcomes for the other COPCs and vice versa, Sharma notes, adding, "Our hope is that through CREATE we're able to create a path that moves current treatment models out of the individual COPC silos to integrative holistic care not only for TMDs but also for other chronic pain disorders."

CHANGING PERCEPTIONS OF TMDs

While TMDs and orofacial pain have long been included in UB's School of Dental Medicine curriculum, contemporary training in medical and dental school nationwide is not sufficient when it comes to complex diseases such as TMDs, Ohrbach says.

Working toward all the goals will help TMD sufferers who often feel disregarded by the medical establishment, Ohrbach says.

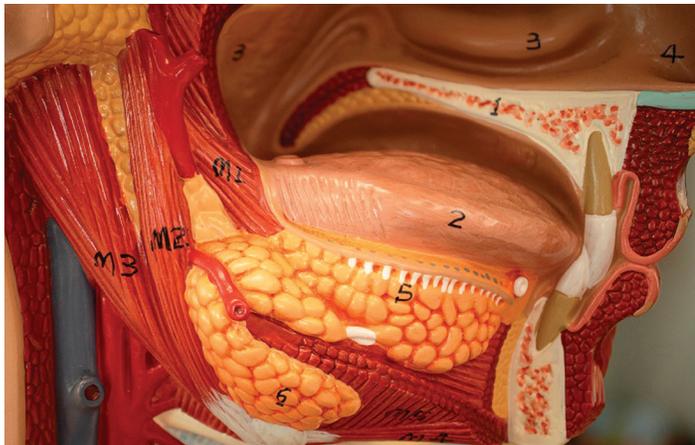
"Physicians and dentists often don't understand the disorders, and health insurers don't want to pay for treating these disorders because they don't know what they are," he says. "This is something we hope our research will change."

This story has been edited for length.



DR. RICHARD OHRBACH

UB dental professor studying immune system's role in Sjögren's disease



DR. JILL KRAMER'S LAB IS INVESTIGATING A KEY MOLECULE IN THE IMMUNE SYSTEM THAT COULD ADDRESS DRY MOUTH AND OTHER SYMPTOMS ASSOCIATED WITH CERTAIN DISEASES.

BY LAURIE KAISER

SJÖGREN'S DISEASE affects about 4 million people in the United States, predominately women. Characterized by severely reduced tears and saliva, the autoimmune disease makes the sufferers' mouths feel like they're filled with cotton and often results in tooth decay and difficulty swallowing.

Jill M. Kramer, DDS '06, PhD '07, associate professor in the Department of Oral Biology, is looking at how targeting a key molecule in the immune system could lead to better therapies for this debilitating condition.

"There are no FDA-approved drugs for Sjögren's other than those that reduce eye inflammation," she said. "Unfortunately, we don't have anything that prevents the loss of salivary flow or reverses it. As dentists, we just advise patients to drink lots of water, avoid sugary, sticky foods, brush their teeth often, and use high-fluoride products to manage the symptoms and try to prevent decay."

SECOND NIH AWARD FOR STUDY

Kramer, who has studied Sjögren's disease for several years, recently received a \$2.1 million, five-year renewal grant from the NIDCR, which is part of the NIH, to study the molecule MyD88 and how it is activated by various receptors. This study continues research that Kramer and her team began in 2017.

"We know that MyD88 plays a key role in the immune system by helping cells respond to the signals that trigger inflammation," she said. "If you don't have this molecule, you're very susceptible to disease."

In their initial study, MyD88 was genetically removed from mice that were prone to Sjögren's, and they didn't exhibit the typical dry mouth or inflamed organs.

"We knew that MyD88 was really important because if it was gone, a lot of the disease manifestations were completely abrogated," Kramer said.

There is a huge caveat: The mice typically became very sick by six months of age. Thus, blocking MyD88 may not work as a therapeutic approach to combatting Sjögren's because humans could become severely ill with other diseases.

Understanding exactly how MyD88 causes Sjögren's, however, could lead to the development of new drugs that block these harmful pathways.

CONNECTIONS TO OTHER AUTOIMMUNE DISEASES

Kramer and her team are expanding their study of the specific receptors that activate MyD88 and how they communicate with each other. Kramer is collaborating with dental school colleague Rose-Anne Romano, PhD '08, associate professor in the Department of Oral Biology, to understand these interactions in patients and mice with Sjögren's disease. PhD student Sheta Biswas and master's student Bayan Alhaddad are also working on the project.

A group of molecules called toll-like receptors (TLRs) play a crucial role, acting like sensors on immune cells that help the body detect germs

or danger. The researchers have discovered that two different receptors, TLR7 and TLR9, are especially important, and there is a sex bias in how they work.

For instance, female mice that didn't have TLR7 had a lessened amount of Sjögren's disease, while the male mice got sicker.

"It made us wonder: Should we be thinking about treating males and females differently?" Kramer said. "It raises some interesting questions for us to consider from a therapeutic perspective."

Insights gained from studying Sjögren's could potentially benefit patients with other autoimmune diseases, such as lupus and rheumatoid arthritis, she said.

She noted that current work in the field focuses on understanding Sjögren's disease from a molecular perspective, and such studies will likely inform treatments for Sjögren's and similar diseases.

"We're starting to appreciate the fact that even though patients may be diagnosed clinically with Sjögren's disease, there can actually be distinct molecular variations within these patients," she explained. "And if we can identify specific subsets of patients with particular variations, we may be able to predict which patients may respond well to a specific treatment. I think as our understanding grows, we will be able to group patients according to their molecular profiles and then treat them in a targeted way."

She continues, "Our hope is that as we gain a more sophisticated understanding of how the disease progresses and about the differences between males and females, and the way that these molecules talk to each other, we can effectively block key mediators of inflammation without making the patient immunocompromised."



DR. JILL M. KRAMER

This story has been edited for length.

Study tracks evolution of human saliva back to primates

BY LAURIE KAISER

SALIVA IS A BODILY FLUID most of us take for granted despite the significant roles it plays: aiding in digestion, maintaining strong teeth and defending against oral disease.

However, the evolution of human saliva has been largely unknown — until now, thanks to two UB faculty members and two graduate students.

Stefan Ruhl, DDS, PhD, professor and chair of the Department of Oral Biology, and Omer Gokcumen, PhD, associate professor of biological sciences in UB's College of Arts and Sciences, discovered that the protein genes that create human saliva have undergone frequent duplications, losses and regulatory changes, which became particularly evident in the primate lineage.

"Our work highlights how evolutionary adaptations to diet and disease may have influenced primate biology, including humans," explains Ruhl, who has studied different aspects of saliva biology for years.

The scientists recently published their findings in the journal *Genome Biology and Evolution*.

Petar Pajic, a former PhD student in biological sciences who is now a National Science Foundation (NSF) postdoctoral research fellow at Yale University, contributed to the study and is the first author on the paper.

Luane Landau, a current PhD student in biological sciences, also contributed to the study, which was funded by the NSF, the NIDCR and the National Cancer Institute.

Using DNA and RNA datasets to compare species, the researchers found that secretory calcium-binding phosphoprotein (SCPP) genes changed and expanded at pivotal moments over the course of evolution — when early animals first developed skeletons, when tooth enamel appeared in fish and when mammals began producing milk.

DIFFERENCES IN SALIVA IN HUMANS VS. OTHER SPECIES

When the group began their research, they initially thought that human saliva would be identical to that of apes, which are more than 98% genetically homologous to humans.

"If you look at their blood, it's pretty identical to ours in its composition. We thought it would be the same for saliva, with maybe one or two different components we could study," Ruhl says. "How wrong we were. It turned out there were not one or two, but many substances that were different."

That revelation prompted the team to compare human saliva to that of other animals.

"We have proven that saliva protein composition is influenced by diet," Ruhl says. "The environment a certain animal lives in and what it prefers to consume will shape, evolutionarily speaking, the composition of saliva proteins."

For instance, nonhuman primates have relatively low amounts of amylase, the enzyme that breaks down starch into simpler sugars, in their saliva, while humans have a great deal more of it. That change happened because humans became consumers of starch early on, while apes did not.



IMAGE CREATED BY PETER PAJIC USING CHATGPT.

Upon further review, the researchers realized that there are a handful of other genes that encode very abundant salivary proteins in humans, and they were found in the same cluster of genes as milk caseins. Those genes provide growing infants with calcium for bone growth, much as saliva protects teeth through mineralization.

"The real development of the saliva genes that resemble those in humans occurred in the primate lineage," Ruhl says. "That was interesting to us because nonhuman primates are picky eaters, and they mostly choose from a variety of fruit and veggies. We believe that the diversity of saliva proteins in primates must have something to do with them being able to distinguish between different taste varieties or to protect from harmful substances in the plants they eat."

SALIVA COULD REVEAL SPECIFICS OF ORAL HEALTH

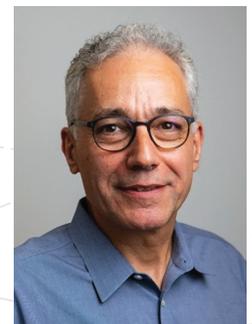
Another possible frontier to study is the composition of saliva in different cultures around the globe that traditionally follow distinct diets. This could provide a better understanding not only of saliva itself but also why individuals are differently prone to oral diseases.

"If you want to find reliable biomarkers for disease and disorders, you first have to establish a robust baseline," Ruhl says. "We know there are biomarkers among different individuals, but we don't know what their normal baseline levels in saliva are, whether it has to do with our genetic backgrounds or where and how we live and eat."

He adds that while medical doctors have blood and urine as diagnostic fluids indicative of health, dentists and dental researchers should claim saliva as their biofluid, which can indicate a great deal about the oral cavity and should be used more often.

Gokcumen adds that the rapid evolution of genes that are important to oral health may make some individuals more susceptible to certain conditions.

"This could be cavities or metabolic variation, under particular environmental circumstances," he explains. "In that sense, our results open the door to exploring personalized medicine approaches related to oral and systemic health. More broadly, the study provides new insight into how novel genes can emerge and diversify across species."



DR. STEFAN RUHL

This story has been edited for length.

Investigating persistent barriers to oral health

BY LAURIE KAISER

WHILE OVERALL DENTAL HEALTH among young children in the U.S. has improved over the last two decades, adolescents have not experienced the same gains. A recent study in Western New York led by Rubelisa Oliveira, DDS, MPH '25, assistant professor in the Department of Periodontics and Endodontics, is uncovering the reasons why.

Despite sharing similar socioeconomic conditions and living in the same household, adolescents ages 12 to 17 show significantly worse oral health outcomes than their younger siblings. According to national data, nearly 60% of adolescents have untreated tooth decay — a slight increase from earlier decades — highlighting widening disparities in oral health care access and outcomes for this age group, especially among Hispanic and Black youth. Oliveira received a \$420,000 Harold Amos Medical Faculty Development Award from the Robert Wood Johnson Foundation in 2023 to pursue research on barriers to treatment facing

underrepresented adolescents in Western New York. This is a continuation of research she began as a postdoctoral scholar at the University of Kentucky.

She led the interdisciplinary study from 2023 to 2024 in collaboration with the UB Clinical and Translational Science Institute (CTSI), including its Community Engagement (CE) Studio.

Oliveira and her team also performed a secondary analysis of dental visits between 2018 and 2023 made by 825 individuals to the UB Dental clinical facility.

Their findings, published in the *Journal of Public Health Dentistry* and the *International Journal of Dentistry*, suggest that missed dental appointments are just one visible symptom of deeper structural and social challenges that affect adolescents' ability to access care. "Adolescents are often overlooked in health care strategies," said Oliveira. "But this is a critical period when lifelong health behaviors are being formed. We need to understand the broader context shaping their access to care."

LOOKING BEYOND MISSED APPOINTMENTS

The research team reviewed 7,379 dental visits at UB Dental from 2018 to 2023 and found that adolescents accounted for the highest percentage of missed appointments — 24% —

compared with younger children. However, Oliveira cautions against placing blame solely on families or patients.

"Our data show that no-shows are frequently tied to persistent barriers — financial, logistical, and emotional — that prevent families from consistently accessing care," she said.

One of those barriers is caregiver dental anxiety, which the team studied in a companion project involving 167 caregiver-adolescent pairs in Western New York. They found that more than 60% of both caregivers and adolescents had elevated dental anxiety, and that anxious caregivers were nearly four times more likely to have anxious adolescents. This anxiety is linked to poorer oral health outcomes, highlighting the intergenerational impact of dental fear.

Oliveira also noted that adolescents may resist dental visits as they age, especially when they have had negative or anxiety-inducing experiences in the past.

The survey also revealed that many families were unaware that children over age 12 remain eligible for Medicaid dental coverage — a misunderstanding more common in households where English is not the primary language. Some parents hesitated to make appointments due to confusion about coverage or out-of-pocket costs.

COMMUNITY-BASED SOLUTIONS

As the researchers continue to analyze data, they are also working to remove barriers to adolescent dental care. Oliveira and her colleagues are working with middle and high schools across Buffalo and Niagara County to offer dental screenings and oral health education. They're exploring ways to train school nurses to help identify oral health problems and refer students for care.

"This isn't just about getting more adolescents into the dental chair," Oliveira said. "It's also about understanding the realities families face and building systems that help monitor and support adolescents who need professional dental care in their communities."

This story has been edited for length.



DR. RUBELISA OLIVEIRA



UB oral biology researchers receive NIH grant to create miniature tooth model



BY LAURIE KAISER

ABOUT 1 IN 10 CHILDREN are born with at least one missing permanent tooth due to congenital anomalies. And a much higher percentage of adults lose teeth from decay or injury over their lifetimes.

Implants and bridges, which can be expensive and involve risks to surrounding teeth, are the only remedy. Unlike bones, teeth do not regrow.

Two dental school researchers have received funding to work toward an alternative. They are growing miniature teeth in a lab from induced pluripotent stem cells (iPSCs), which are reprogrammed adult stem cells.

Laertis Ikonomou, PhD, associate professor of oral biology, is the principal investigator of a two-year, \$435,167 R21 grant from the NIDCR to better understand how human teeth form at their very earliest stages and how to replicate them.

The two researchers will use a process called directed differentiation to guide the stem cells through the same type of steps that occur when a tooth is developing in a human embryo.

“The goal is to develop a powerful new tool for understanding why some children are born with missing or defective teeth, and eventually, to open the door to regenerative dental therapies,” Kwon said.

COMPLEMENTARY RESEARCH INTERESTS

Ikonomou met Kwon when he interviewed at UB in 2019.

“I realized that we had a confluence of research interests,” Ikonomou said. “During my interview and presentation, I sketched out some ideas of how we can make teeth from pluripotent cells. Researchers have tried for many years but haven’t quite been successful.”

“We use human embryonic stem cells less and less in research due to a lot of issues, including ethical issues,” Ikonomou says. “What we are mostly using in our research are induced pluripotent stem cells. We can take cells from any individual and turn back the clock to return them to their pluripotent state. It’s pretty amazing.”

FACILITATING FORMATION OF EARLY ORGANOIDS IN MICE

For their project, Ikonomou and Kwon will first create “reporter” stem cells.

The cells start glowing in certain colors when specific genes are activated, which will help in tracking and isolating early tooth progenitors. At the same time, they will map the genetic instructions that guide normal tooth initiation in mice, using advanced single-cell and spatial technologies. Tooth progenitors derived from iPSCs can then form 3D structures in a dish, called organoids.

“You can also put the cells under the kidney capsule in mice because it’s highly vascularized,” Ikonomou explains. “It’s a permissive environment that will facilitate the formation and maturation of this early organoid, which doesn’t resemble a mature tooth.”

Finally, they will combine all this information with previous research to try to recreate the process to make efficient and accurate early dental cells.

With a better understanding of why some humans are born with dental anomalies, researchers can then start looking for therapeutic targets to directly address those birth defects — and eventually replace implants for a number of patients, including those who lose teeth due to injury or decay.

LONG PROCESS TO GET TO BIOARTIFICIAL TEETH

There is no quick fix, however.

“Scientists started doing research in the early 2000s with pluripotent stem cells for lungs,” Ikonomou says, “and still we have no therapies.”

With more understanding and research, the door could open to surgically implanting cells for organic teeth inside the mouth or growing cells in an animal host, which would create a finished tooth to be implanted in the mouth.

“The challenge is that you would have to do microsurgeries to connect the tooth to the existing nervous system and the circulatory system so that the tooth is receiving the nutrition it needs to be healthy,” Kwon says.

While doing their investigations under this grant, Ikonomou says they will apply for additional grants to continue conducting research toward the ultimate goals.

“I think it will take a long time to develop something that can essentially make an artificial tooth,” he says. “We are hoping to work on this for a long time.”

This story has been edited for length.



DR. LAERTIS IKONOMOU



DR. HYUK-JAE (EDWARD) KWON



BNDM | 2025

Celebrating lifelong learning at the 48th Buffalo Niagara Dental Meeting

BY SHERRY SZAROWSKI

THE 48TH BUFFALO NIAGARA DENTAL MEETING welcomed more than 2,000 attendees to the Buffalo Convention Center for 2.5 days of education, collaboration and community. This year's meeting reaffirmed our mission: To provide high-quality continuing education and to cultivate an environment where dental professionals learn, grow and succeed together. Designed with lifelong learning at its core, the meeting offered programming for dentists, hygienists, dental assistants, office managers and the entire dental team.

HONORING ALUMNI EXCELLENCE

We were proud to feature seven UB Dental alumni as speakers during this year's convention, each bringing expertise, innovation and pride in their alma mater.

- **Benjamin Friberg, DDS '15**, offered insights through his program "From Chaos to Care: Creating a Fulfilling Practice."
- **Thomas J. Kopic, DDS '75**, celebrating his 50-year reunion, delivered a session on "Single-Tooth Implant and Implant Fixed Complete Denture Postplacement and Oral Hygiene Care."
- **Keith L. Kirkwood, DDS, PhD '97**, our *Robert J. Genco Distinguished Speaker*, presented "The Impact of Obesity on Periodontal Diseases."
- **Devin McClintock, DDS '16**, and Sara Kuckhoff, DMD, presented "Reflections: Capturing the Art of Dental Photography."
- **Patricia Swanson, DDS '15, FACP**, lectured on "Dental Esthetics in Modern Times."
- **Alyssa Tzetzto, DDS '20, MPH '21**, led the mandatory Infection Control course, "Key Standards and Compliance for Effective Practice."

This year also marked the return of hands-on programs, which had paused during the COVID-19 pandemic. **James Wanamaker, DDS '16**, led the "Anterior Composite Playbook: Mastering Class IV Restorations, and Shashikant Singhal, BDS, MS, MBA, led "Cementation Clarity: Streamlined Protocols for Predictable Clinical Success." Both hands-on sessions were supported by Ivoclar.

EXPANDING COLLABORATION

Through a new collaboration with the Jacobs School of Medicine and Biomedical Sciences Alumni Association, we welcomed neurologist Melissa Rayhill, MD '10, FAHS, FAAN, who presented "Headache Diagnosis and Management: A Neurologist's Perspective." Her session highlighted the importance of interdisciplinary collaboration in comprehensive patient care.

THANKING OUR SPONSORS AND EXHIBITORS

We extend our sincere gratitude to all our sponsors whose generosity strengthens our meeting year after year. Whether supporting featured speakers, the Opening Night Celebration, Thursday Happy Hour on the exhibit floor, Door-to-Door Park & Ride, attendee bags and lanyards, or special events like the Remember When Reception, their contributions made this year's success possible.



More than 80 exhibitors filled our exhibit hall with cutting-edge products, innovative technologies and practice solutions. Their presence provides invaluable opportunities for attendees to explore advancements shaping the future of dentistry.

We also proudly showcased two exciting additions on the exhibit floor: The brand-new Health on Wheels mobile unit and the Smiles to Go Mobile Dental Unit. Both expand UB's outreach efforts and help deliver care to underserved communities.

Our Buffalo Niagara Dental Meeting Committee and president of the University at Buffalo Dental Alumni Association presented Ivoclar with an award for 20 years of IPS e.max by Ivoclar. Chet Spivey, president and chief commercial officer, and George Tyskowsky, DDS, MPH, FACD, director, Global Professional Services, and senior vice president of technology and professional relations (also celebrating 40 years with Ivoclar), accepted the award.

THE VITAL ROLE OF UB DENTAL STUDENTS

UB dental students continue to be at the heart of the meeting. Each year, they arrive enthusiastic to learn, volunteer, and connect with alumni and dental professionals.

Students assisted with numerous events throughout the meeting and highlighted their clubs and activities. This year, they brought the student-led Tooth Be Told Podcast right to the convention floor, where they interviewed alumni and friends for upcoming episodes. (You can listen to the podcast on your favorite streaming platform!)

Victoria (Tori) Majka, Class of 2028, played the piano during our Opening Night Smile in the Aisle party. Tori's music was heard throughout the exhibit floor and added a touch of elegance and beauty to the evening.

A special thank you goes to our Major Sponsors, MLMIC Insurance Company and Ivoclar, for their steadfast support of the Buffalo Niagara Dental Meeting and the UB School of Dental Medicine. We are also grateful to Dean Marcelo Araujo for his ongoing support of the meeting and the UB Dental Alumni Association.

We look forward to welcoming everyone back next year!
**Save the date for the 49th Buffalo Niagara Dental Meeting:
 Nov. 4-6, 2026.**

AWARD RECIPIENT

Distinguished Service Award

**Paul R. DiBenedetto,
DDS '79**

THE DISTINGUISHED SERVICE AWARD is given in recognition of outstanding leadership, advocacy, and support to the dental profession, the UB School of Dental Medicine and the Alumni Association. Dr. Paul DiBenedetto was honored as this year's award recipient.

Dr. DiBenedetto grew up in the Rochester, NY, area, graduated magna cum laude from Niagara University with a Bachelor of Science in Biology, and earned his DDS from the University at Buffalo School of Dental Medicine in 1979.

Dr. DiBenedetto, his wife, Kathy, and their three children lived in East Amherst, NY, after his dental education. There, he enjoyed a longtime involvement with Lou Gehrig Youth Baseball and Softball, Amherst Girls Softball, Amherst Youth Basketball and the Williamsville North High School Girls Basketball program.

He spent many years in private dental practice and became involved in many professional organizations, including serving as president of the Dental Alumni Association, the Fonzi Dental Study Club and the Buffalo City Dental Bowling League. He is a life member of the Eighth District Dental Society and the Erie County Dental Society and was named a Buffalo Ambassador by Visit Buffalo Niagara for his efforts in promoting tourism to the area.



Dr. DiBenedetto became involved with the Buffalo Niagara Dental Meeting in its early days as a small, one-day continuing education seminar and has seen it grow into a large, regional, multi-day dental convention offering world-class speakers and exhibitors. The meeting has thrived, surviving the COVID-19 pandemic shutdown and the trend of decreasing attendance at much larger conventions. Through the continuing efforts of the dedicated organizing committees, it now has a total attendance of over 2,000 each year.

The annual Buffalo Niagara Dental Meeting enables the Dental Alumni Association to help fund three endowed chairs and the Dental Alumni Association Endowed Fund at the School of Dental Medicine. It also brings the five-year reunion classes back to Buffalo, where they can see, firsthand, the ongoing efforts of the dental school to continue its journey of excellence.

Dr. DiBenedetto retired from dental practice in 2024. He now lives with his wife in Delaware, close to their grandchildren, and enjoys travelling to visit family and friends.





AWARD RECIPIENT

Honor Award



**Raymond G. Miller,
DDS '85**

THE HONOR AWARD, the highest honor the Dental Alumni Association bestows, is given to an individual whose enthusiastic and untiring endeavors have helped to promote the continued growth, development and success of the UB School of Dental Medicine. This year's recipient was Dr. Raymond G. Miller.

Dr. Miller is a 1985 graduate of the UB School of Dental Medicine. He has practiced general dentistry as a partner/owner in Lancaster, NY, since 1986. Since that time, he has served as a faculty member in what is now the Department of Oral Diagnostic Sciences at the UB School of Dental Medicine and currently holds the rank of clinical assistant professor. He has served on the Dental Alumni Association's Executive Council since 1990 and as class reunion chair since 1992.

Dr. Miller joined the New York Air National Guard in 1989 and served for 29 years, rising to the rank of lieutenant colonel. He was deployed to Iraq in 2008 in support of Operation Iraqi Freedom. He received numerous awards and decorations during his term of service.

After completing forensic training through the Armed Forces Institute of Pathology, the

American Dental Association (ADA), and other forensic organizations, such as the American Society of Forensic Odontology and the American Academy of Forensic Sciences (AAFS), Dr. Miller established a relationship with the Erie County Medical Examiner as a consultant. He joined the federal Disaster Mortuary Operational Response Team in 2001 and responded to the World Trade Center on September 11, Hurricane Katrina and the crash of Flight 3407 in Clarence, NY, directly involved in victim identification. He has published numerous articles on the subject, consulted on casework, testified in court, and lectured both nationally and internationally on the topic. As a member of numerous committees, he has contributed to the development of standards for the forensic dental profession. He was elected Chair of the Odontology Section for the AAFS from 2016-2018 and is currently a member of their Board of Directors.

Dr. Miller served as president of the Eighth District Dental Society and has served on numerous councils and committees on the local, state (NYSDA) and national (ADA) levels. He has been a delegate to both NYSDA and the ADA. He is a current member of NYSDA's Board of Trustees.

Dr. Miller is married to his wife, Maria, with whom he has two adult children, Raechel and Christopher. Recreationally, he enjoys fishing, golf, softball and ice hockey. From 2018-2025, he participated in the 11 Day Power Play local charity, proudly raising over \$60,000 for cancer research as a player. He is currently employed as the head team dentist for the NHL's Buffalo Sabres. His work and affiliation with the military, dental school and organized dentistry has afforded him opportunities to support various dental humanitarian missions in the United States and abroad.

REMEMBER WHEN RECEPTION 2025

THURSDAY, NOV. 6
HYATT REGENCY ATRIUM

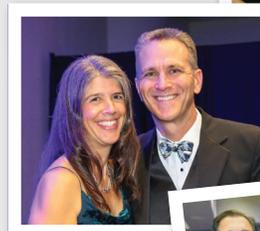


Celebrating 50+ Years of Reunions



UBDAA REUNION DINNER DANCE 2025

FRIDAY, NOV. 7
BUFFALO CONVENTION
CENTER BALLROOM



UB Dental Alumni Association Executive Council

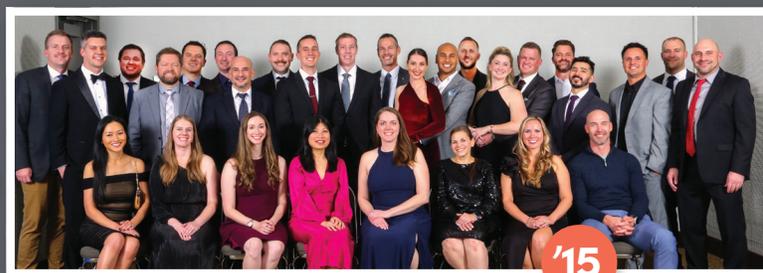
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DR. RAYMOND MILLER

“My job was to identify victims of the attack and return them to their families.”

— Raymond Miller

MY VIEW:

A memory box both tragic and hopeful

BY RAYMOND G. MILLER, DDS '85

I recently moved from my home of 31 years. In the transition, I came across many of my treasured keepsakes — things I do not often see in my regular routines, but that I reflect on and think about periodically. Things my wife of 40 years thinks I need less of, and sometimes she is right.

However, one of these items took me back 24 years ago, to a day and time most of us recall vividly. We know where we were, what we were doing and the emotional impact we felt. My discovery was a small plastic box, about the size of a shoe box.

It contained candy, work gloves, a t-shirt and a letter. The letter was a simple “note of thanks.” It came from a family in Angelica, NY, a small town in Allegany County. I was in New York City at the time, southern Manhattan to be exact. As an intermittent federal employee, activated for mass fatality incidents and a forensic specialist, I was a responder to the tragedy of September 11.

My job was to identify victims of the attack and return them to their families. This act sadly only occurred for approximately 60% of the families. Many families hoped against all odds that maybe their loved one was in a hospital, just injured and waiting to be found. Even though they, like those of us working the tragedy, knew the odds were against them.

The news of the death of their mother, father, sister, brother, daughter or son was devastating, but it allowed them to grieve and accept the sad reality facing them. When you do this work you try to be objective, not think about the families, knowing in your heart, however, that it was them you truly served.

In order to get through each day, it was necessary to focus on the task at hand, even though there were constant reminders of the humanity lost. People simply going about their normal routines became innocent victims of hate.

It was for the above reason that the box was such a simple, but impactful, symbol of hope. Hope that people care about others. Knowing they cannot bring back those lost, they made an effort to show support for those that were working under trying and emotional conditions.

This family from Angelica showed me, a stranger to them, gratitude and appreciation. They did not know me but they had some perception that I was in a place that no person wanted to be. I had a job to do, I was qualified and trained to do it, but it is a job I would rather never do.

They somehow knew, or maybe they did not, that a note of thanks and some candy meant that good will can still triumph over evil. I never ate the candy. I still have the candy. If I ate it, I felt in some way the important symbolism would be lost. I felt the reminder was better left in the box.

In the note, they thanked me for helping “get things back in order.” They wanted the care box to “pick me up and put a smile on my face.” What the box did in reality was show me that good, caring people exist. Respect and love for your fellow man may one day triumph.

We as a nation are not there yet, and, sadly, we may have taken some steps backward since September 11, but I have a small box that tells me otherwise.

Thank you Alan, Sherri, Alex, and Karleigh: Your gift, the box, means the world to me.

A memory box both tragic and hopeful

I recently moved from my home of 31 years. In the transition I came across many of my treasured keepsakes — things I do not often see in my regular routines, but that I reflect on and think about periodically. Things my wife of 40 years thinks I need less of, and sometimes she is right.

However, one of these items took me back 24 years ago, to a day and time most of us recall vividly. We know where we were, what we were doing and the emotional impact we felt. My discovery was a small plastic box, about the size of a shoe box.

It contained candy, work gloves, a t-shirt and a letter. The letter was a simple “note of thanks.” It came from a family in Angelica, NY, a small town in Allegany County. I was in New York City at the time, southern Manhattan to be exact.



Dr. Raymond G. Miller, of Buffalo, treasures a box that contains both sadness and hope.

constant reminders of the humanity lost. People, simply going about their normal routines, became innocent victims of hate.

It was for the above reason that the box was such a simple, but impactful, symbol of hope. Hope that people care about others. Knowing they cannot bring back those lost, they made an effort to show support for those that were working under trying and emotional conditions.

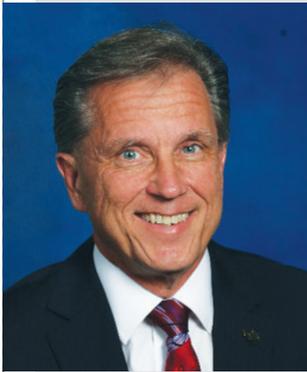
This family from Angelica showed me, a stranger to them, gratitude and appreciation. They did not know me but they had some perception that I was in a place that

Editor’s note:

Dr. Raymond Miller is a dentist, proud UB dental alum, faculty member, and decorated veteran of the NY Air National Guard. As an expert in forensic dentistry and member of the federal Disaster Mortuary Operational Response Team, he has been directly involved in victim identification for mass fatality incidents, including September 11, Hurricane Katrina, and the crash of Flight 3407 in Clarence, NY. Dr. Miller’s editorial was originally published in The Buffalo News on Sept. 14, 2025.

The story has been reprinted with permission.

Chester Gary wins top two 2025 William J. Gies Editorial Awards



DR. CHESTER GARY

BY LAURIE KAISER

As a dentist and attorney, Chester J. Gary, DDS '78, JD '91, knows the benefits and pitfalls of artificial intelligence (AI).

“Despite its advances to the dental profession, AI cannot think, feel or have a soul,” Gary says, adding that any advice that AI provides to a dentist won’t hold up in court if something goes wrong.

“AI in its best form is still only a computer,” says Gary, who has served as clinical assistant professor of restorative dentistry in the School of Dental Medicine since 1996. He recently retired from a longtime legal practice that primarily represented dentists.

“AI doesn’t have the clinical judgment of a human being, taking into account a patient’s finances, social challenges, mental ability or other relevant situations.”

An editorial that Gary wrote from the perspective of AI, “True Confessions of an Artificial Intelligence System,” took first place in the 2025 William J. Gies Editorial Awards from the American Association of Dental Editors & Journalists (AADEJ) and the American Dental Education Association’s ADEAGies Foundation.

Gary also won second place for his editorial, “I’m Mr. Brightside: Optimistic Dentistry Can Maintain Its Leadership Role in Dentist-Patient Decision-making.” This piece looks at the relationship between dentists and insurance companies through

the lens of the 2004 pop song by The Killers, “Mr. Brightside,” which tells the story of a man who catches his girlfriend being unfaithful.

“While listening to this song, I thought how managed care organizations can feel like the other man in the dentist-patient relationship, essentially taking our place in patient-decision-making by choosing not to cover recommended procedures,” Gary explains. “While we don’t know if the man in the song gets his girlfriend back, as dentists, we must eliminate MCOs’ intrusion into the dentist-patient relationship that interferes with informed decision-making.”

The Gies Editorial Award honors authors of the most valuable editorials published in a dental journal or periodical. Gary’s winning editorials were both published in the *New York Dental Journal* in 2024, for which he served as editor from 2016 to 2024. This marks the sixth year that Gary has won a Gies award.

“Dr. Gary’s first- and second-place 2025 Gies Editorial Awards highlight his exceptional contributions to dental scholarship, building on his remarkable legacy of awards in 2020, 2014, 2009, 2005 and 2003,” says Dean Marcelo Araujo, DDS, MS ’99, PhD ’03. “His insightful work continues to inspire and elevate our academic community.”

WE WANT TO HEAR FROM YOU! - - - -> Submit your class notes to **Sherry Szarowski** at ss287@buffalo.edu.

FROM THE DEAN



A NEW YEAR OF CONNECTION AND COMMUNITY

2025: What a year! We had so many great events that brought our alumni together in the spirit of connection and community. Whether we were cheering on the Bulls or networking at the BNDM, one thing is clear: UB dental alumni know how to have fun! As an alum myself, I truly value the opportunity to connect with others who share the same pride in and passion for our school. I look forward to seeing you at an upcoming event, and thank you for your unwavering support of the SDM! Go Bulls!

Marcelo Araujo, DDS, MS '99, PhD '03, Dean



THE UB DENTAL TENT WAS THE PLACE TO BE AT THE HOMECOMING TAILGATE!



HOMECOMING TAILGATE

UB dental alumni, family and friends had a blast at the annual UB Homecoming tailgate and football game in October! It was a beautiful day for football, fun and a Bulls win!



CALLING ALL ALUMNI

It's time to renew your alumni association membership for 2026.

Your membership directly supports current UBSDM students through scholarship, charity, social events and more. Members receive a variety of benefits, such as a reduced registration fee for the Buffalo Niagara Dental Meeting, hospitality receptions and reunion activities.



SCAN TO JOIN OR RENEW.

2025 DISTINGUISHED ALUMNI AWARDS

Congratulations to **Dr. Mary John, '00,** and **Dr. Bob Lalor, '00,** who received the 2025 Distinguished Alumni Awards! They were recognized during a ceremony held in October.



UB PRESIDENT SATISH K. TRIPATHI AND THE LALORS.

FROM LEFT: NEIL DENGLER, SENIOR DIRECTOR OF ADVANCEMENT, DEAN MARCELO ARAUJO, SHERRY SZAROWSKI, SENIOR DIRECTOR OF ALUMNI RELATIONS AND PROFESSIONAL ENGAGEMENT, DR. LALOR, DR. JOHN, AND DENTAL ALUMNI ASSOCIATION PRESIDENT DR. JOE DELUCA.



CELEBRATING SCHOLARSHIP WINNERS

The **UBSDM** held its annual Scholarship Award Reception on Aug. 21, recognizing students' outstanding achievements. This year, the dental school gave away 41 scholarships to 113 recipients. The scholarship award total was almost \$400,000, thanks to the generous support of our alumni.



2026 UPCOMING EVENTS

Hanau Cup Hockey Game

Buffalo Riverworks
Feb. 20, 2026
6 p.m. Puck drop

Women's Basketball Game

Feb. 25, 2026
5 p.m. Pregame reception
6 p.m. Game

John J. Cunat Lecture

Westin Buffalo
June 5, 2026

Chautauqua Dental Congress

Chautauqua Harbor Hotel
Presented by the Eighth District
Dental Society
June 18–19, 2026

Buffalo Niagara Dental Meeting

Buffalo Convention Center
Nov. 4–6, 2026
BNDMeeting.com

REUNION SCHEDULE OF EVENTS

This year celebrates the 50-year reunion of the Class of 1976 as well as the UB dental classes ending in 1s and 6s.

Alumni Remember When Reception

Location TBD
Thursday, Nov. 5, 2026

Alumni Dinner Dance Reunion

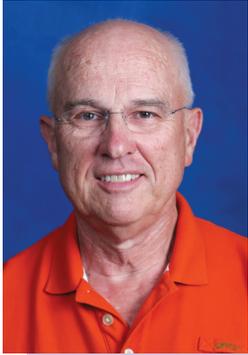
Buffalo Convention Center Ballroom
Friday, Nov. 6, 2026

UB School of Dental Medicine Tour

Saturday, Nov. 7, 2026
10–11:30 a.m.

If you are interested in becoming a leader for your class reunion, please contact **Sherry Szarowski** at 716-829-6419 or ss287@buffalo.edu.

Please visit dental.buffalo.edu/alumni for details on event times and locations.



Kenneth R. McHenry, DDS '75

Kenneth R. McHenry, DDS '75, a longtime faculty member at the UB School of Dental Medicine and friend to so many in our community, passed away on Oct. 12, 2025, from a glioblastoma at the age of 76 in Cleveland, OH, surrounded by his family.

Dr. McHenry, a retired associate professor in the Department of Restorative Dentistry, was a highly respected prosthodontist, dedicated clinician and educator, gifted craftsman, and world traveler.

Dr. McHenry graduated from the SDM with his DDS in 1975, then spent two years at the Groton Submarine Base in New London, CT, as a Dental Officer (LCD) in the U.S. Navy. He then returned to Buffalo to complete his prosthodontics training in 1979, along with a master's in oral sciences in 1983. He joined the SDM faculty in restorative dentistry as an assistant professor in 1979, then as a tenured associate professor in 1987.

Over a four-decade career at the SDM, Dr. McHenry gained a reputation for his excellence in patient care, his dry sense of humor, and his generosity in sharing his time and knowledge with students and colleagues. In addition to his teaching duties, he ran a faculty practice for many years and served as the president of the Dental Alumni Association in 1989. In 2004, Dr. McHenry was selected by the school's faculty to receive the Charles A. Lipani Award in recognition of his outstanding contributions to the school, faculty and dental profession. He retired from the school in 2024.

It was here at the SDM that Dr. McHenry met his wife, Dr. Mira Edgerton, professor in the Department of Oral Biology.

Those who knew Dr. McHenry will remember him for his incredible woodworking skills, his love of sports car restorations, and his natural ability to fix anything. Above all, he will be remembered for his kindness, friendship and dedication to his family.

Paul R. Creighton, DDS '84, Pedo. Cert. '86, passed away on Dec. 15, 2025. He was a clinical associate professor at the SDM and interim chair of the Department of Pediatric and Community Dentistry. He was the co-founder of University Pediatric Dentistry, where he served patients for over 35 years, and an active member of several professional dental organizations.

Carl F. Gugino, DDS '53, Ortho Cert. '61, FACD, FICD, passed away on Aug. 4, 2025. He served as a Lt. Commander in the U.S. Navy and was a widely respected orthodontist, lecturer, and international leader in advancing the profession. He co-founded Great Lakes Dental Technologies in 1965 and was instrumental in developing the first computerized cephalometrics and treatment objective program, innovations that continue to influence orthodontic practice today.

Susan Lunardi, DDS '87, passed away on Sept. 2, 2025. She was a dedicated dentist for 38 years and a passionate animal rescuer via her involvement with Bronx Tails Cat Rescue. She was devoted to her spouse/partner of 40 years, Laura Jean, her children and family.

William B. Maher, DDS '63, passed away on May 23, 2025. Dr. Maher began practicing in oral and maxillofacial surgery in 1968. He was an associate professor of OMFS at UB and a Diplomate of the American Board of Oral and Maxillofacial Surgery. He belonged to many professional organizations and served as president of WNY Oral and Maxillofacial Surgeons and the Erie County Dental Society.

Leonard P. Muscarella, DDS '75, passed away on March 15, 2024. He served as a lieutenant in the U.S. Navy Dental Corps and then built and ran his dental practice in Farmington, NY, then WNY, where he treated generations of patients. His skill for restorations was renowned.

Howard L. Noonan, DDS '65, passed away on July 23, 2025. He practiced dentistry in Amherst, NY, until his retirement in 2000. He was active in the profession, serving as president of the Erie County Dental Society and as a member of the Eighth District Dental Society Board of Directors and the American Dental Association Ethics Committees.

Norman G. Schaaf, DDS '60, Prosth. Cert. '69, passed away on Sept. 20, 2025. Dr. Schaaf was a professor at the SDM and the founder and chief of the Dental and Maxillofacial Department and Clinic at the Roswell Park Comprehensive Cancer Center for over 38 years, where he transformed patient lives by developing new techniques for prosthetic reconstruction of the head and neck and extraoral implants.

Bernard B. Schugar, DDS '65, passed away on Nov. 20, 2024. Dr. Schugar practiced dentistry for more than 25 years in Bethesda, MD, retiring in 1997 to South Florida.

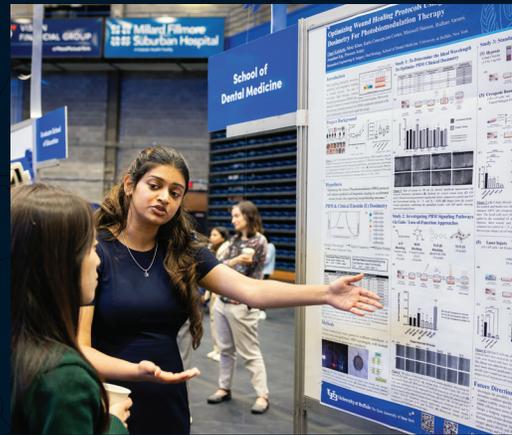
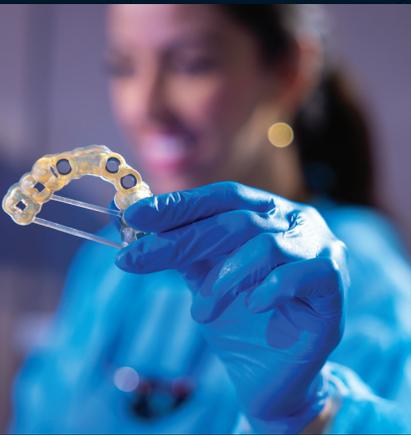
John H. Twist, DDS '61, passed away on Dec. 14, 2025. He practiced dentistry in Lackawanna for 35 years and was an active member and past president of the Eighth District Dental Society.

Joseph Michael Van Vranken, DDS '66, passed away on Sept. 20, 2025. He ran a successful private dental practice until his retirement in 1995.

Richard G. Zogby Sr., DDS '54, FACD, passed away on Aug. 4, 2025. He served in the U.S. Navy for two years, leaving as a Pharmacist Mate 3rd Class. He practiced dentistry for 50 years until his retirement. He held offices with both the Dental Society of the State of New York and its Fifth District.

STRIKE WHILE THE MATCH IS HOT!

Support the School of Dental Medicine and earn a matching gift from New York State.



Now through the end of March, individuals who commit to support an endowment at the School of Dental Medicine can generate a **50% match from New York State**.

- Any commitment of **\$10,000 or more** to an endowed fund qualifies for a match.
- Donors who commit to **\$25,000 or more** can direct where the matching funds go.

A “commitment” may be a pledge of up to five years and gifts can be made with cash, appreciated securities, IRA assets and even estate gifts!



For more information, please contact Neil Dengler, senior director of advancement, at ndengler@buffalo.edu or 716-881-7486.

FSC LOGO

The University at Buffalo is a premier public research university, the largest and most comprehensive campus in the State University of New York system. The School of Dental Medicine is one of 12 schools that make UB New York's leading public center for graduate and professional education and one of six health science schools that collaborate efforts to push the boundaries of scientific discovery and innovation.



Attendee
Registration
opens July 13!

SAVE THE DATE!

NOV. 4-6, 2026



**Exhibitor Registration
OPEN NOW!**



BNDMeeting.com

For more information, call: 716-829-2061 or email: ss287@buffalo.edu

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