

DENTAL BITES



School of
DENTISTRY



JULY
2020

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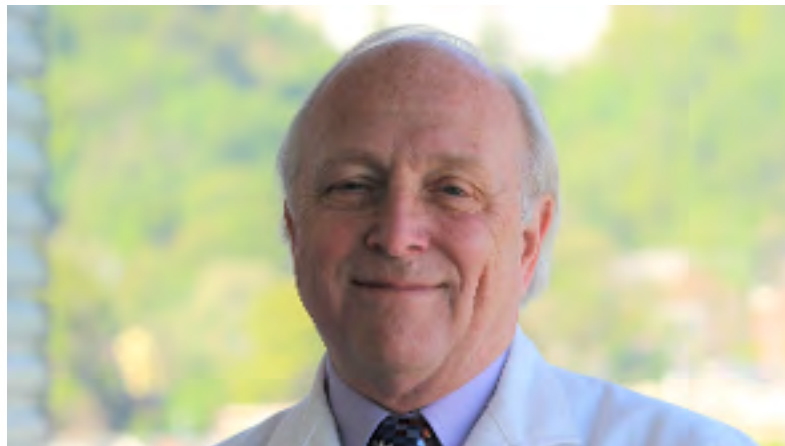
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A LETTER FROM THE DEAN



Dentistry is working to provide compassionate care to those most vulnerable. We are doing this through education and by ensuring that our policies and operations are inclusive and equitable. In August, the SoD will kick-off our new monthly diversity and inclusion series with a presentation titled, "The Treatment of the Transgender Patient: A Personal Narrative," presented by [Dr. Anne Koch](#).

A town hall was recently hosted by OHSU Leadership, addressing how the University will move forward in becoming an anti-racist institution. The speakers introduced several programs that will be launched to back this effort. The SoD is excited to contribute and take part in these initiatives. In future editions, I will be sharing more details about these plans. During the town hall, President Jacobs shared, "We must do as much as possible, as quickly as possible, and to avoid incrementalism." I share this belief, and I look forward to creating the profound change needed to help all of our community thrive.

As always, feel free to reach out to me if you have any questions, concerns, or ideas regarding the School of Dentistry.

Stay healthy, stay safe,
Phil

Phillip T. Marucha, D.M.D., Ph.D.
Dean, School of Dentistry
Oregon Health & Science University

Dear Alumni & Friends,

Our clinics and pre-clinics are opening! SoD staff, faculty, and students are working hard to slowly restore patient volume and in-person student training to levels that are closer to pre-COVID standards. In this edition, you will read all about how the School is moving onward in reopening our clinics, simulation (sim) clinic, and research pursuits.

In late June, both the clinics in Skourtes Tower and on Russell Street reopened in a limited capacity. Due to restricted PPE and current public health policies, OHSU Dental Clinics are only able to operate at approximately 50% capacity and can treat patients of record only. Our group leaders and clinic staff prioritize appointments so that our 3rd and 4th-year students can get as much chairside experience as possible. Sim clinic operations have also been optimized based on the parameters of this "new normal". The course directors have done wonders to revamp courses and work with the room capacities currently in place. The clinics could shut down at any moment due to an unmanageable spike in COVID cases, so our students, staff, and faculty are not taking this time for granted. Research is in the same boat. The SoD's research labs are in a phased ramping-up of operations and are working with OHSU's Office of Research & Innovation to form and develop future reopening phases.

Compassion is vital at this time. Over the past five months, COVID-19 has exposed the health inequities harming our BIPOC communities. It is now abundantly clear that current structures have created economic and social conditions that have led to health disparities, poor health outcomes, and lower life expectancy in these communities. The School of

ABOUT DENTAL BITES

The purpose of *Dental Bites* is to improve the quality of the SoD community by empowering individuals with the knowledge of where the School has been, where it is at, and where it is going. This newsletter is an overview of the month's news and events. It features profiles of SoD members, information about programs, stories about faculty, student, staff, and alumni achievements, and insights into how people contribute to the success of the School.

The School of Dentistry is always looking for content to share. Achievements, civic engagement opportunities, weddings, educational events, obituaries, shout-outs, article topics, awards...we want to hear about it! If you have content or ideas that you think should be shared through *Dental Bites*, please email bites@ohsu.edu.

BE IN THE KNOW

If you haven't already, be sure to follow the SoD on social media! Click on the logos below:



MAKE A GIFT



OHSU School of Dentistry Fund

Support the School of Dentistry and help improve Oral Health in Oregon today! If you have questions or wish to speak with someone from the OHSU Foundation, please contact alumni@ohsu.edu.

[Make a Gift](#)

COVID-19 Pandemic Response Fund

We have created a fund for donations to support the most urgent needs related to OHSU's COVID-19 preparedness and response. These funds will be used flexibly by OHSU leadership to address the highest-priority needs in the coming weeks.

[Make a Gift](#)

OHSU DENTAL CLINICS UPDATE

BY: MEGAN SAGE, MBA
ASSOCIATE OF DIRECTOR OF
CLINICAL OPERATIONS

After Modified Operations commenced on March 23rd, the only care delivered at the School of Dentistry was in the Emergency Dental Care Clinic (EDCC). As of May 29th, the SoD began phase 1 of reopening. A select group of fourth-year dental students started to see patients in the DMD clinic to complete treatment before they graduated; the ortho clinic scheduled patients for adjustments, and the Faculty Dental Practice began to see their patient's dental emergencies.

At the end of the Spring term, June 26th, the EDCC closed, and a new phase of opening began for Summer A term. Urgent dental visits transitioned into the dental student clinic. Dental students moving into their fourth year of instruction started seeing their assigned patients for limited treatments. Oral Surgery opened for certain procedures for existing patients with dental student providers. Graduate residents in Endodontology and Periodontology began seeing patients again. The Russell Street Clinic began seeing their patients for urgent issues.

The patient experience has changed significantly compared to the pre-COVID experience. For example, there are now no waiting areas. Patients are asked to arrive only 10 minutes before their appointment time. Parking in the garage is free for patients, and patients wait in their car



if they arrive too early to comply with social distancing rules. Upon entering the clinic, everyone is screened for COVID-19 symptoms and they have their temperature taken as a precaution. General hand hygiene and facial coverings are required for everyone. New Plexiglass barriers have been installed to add an extra layer of protection during check-in. We anticipate being able to see 50-75% of our usual capacity in Fall 2020. Returning to our pre-COVID patient numbers may not be possible until there is a COVID vaccine or new health precautions and policies that allow for increased patient flow through clinics. Our clinic leadership is continually working to make clinic processes and scheduling as efficient as possible to ensure that student providers get the same amount of care opportunities as they did before COVID.

During this incredibly challenging time when changing variables are a daily occurrence, there have been many opportunities to make improvements. The SoD has been

focused on performance improvement for the last few years. Before COVID, implementing change in the clinic was a challenge due to busy schedules and the volume of patients. Modified Operations made it so we were able to take the time needed to develop standard operations to meet the challenges of COVID. We frequently met in large and small groups to communicate opportunities for improvement and problem-solve. As more clinics and personnel returned, the carefully designed best practices have prevailed throughout all clinics, and communication is at an all-time high. Moving forward, the School of Dentistry is prepared and better equipped to deliver patient care in a safe, innovative, adaptive, and pleasant environment. COVID-19 disrupted our world, but with communication and cooperation, the SoD was able to improve our clinic operations.



Pictured above: The Russell Street Clinic



Pictured above: A waterfront Endo operator

RESPECT FOR ALL.



OUR CURRENT PATIENT COMMUNICATION

The health and well-being of our patients, dental care providers, and employees is our top priority. Our goal is to reopen gradually, starting with a limited number of appointments. Thank you for your patience.

If you are in severe pain, have any bleeding or swelling, or are experiencing a dental emergency, please call (503) 494-8867 M-F between the hours of 8:00 am-4:30 pm. If you have a dental emergency outside of regular business hours, please call (503) 494-8311 for assistance.

If you have any questions or need information, please email SODApptCtr@ohsu.edu.

SOD RESEARCH UPDATE



Pictured above: Dr. Hui Wu



Pictured above: Dr. Justin L. Merritt



Pictured above: Dr. Carmem Pfeifer



Pictured above: Dr. Laura Iwasaki



Pictured above: Dr. Jeff Nickel

The coronavirus pandemic caused the shutdown of scientific research labs across the country. Now that Oregon is in Phase 1 of reopening, the School of Dentistry's research labs have restarted operations under the leadership of Associate Dean of the Office of Research, Hui Wu, Ph.D.

The work done in the School's labs bring to light amazing discoveries that are elevating dental healthcare. Scientists contribute to several areas of study, including but not limited to, the synthesis and development of new biomaterials, cell and developmental biology, and oral microbiology and immunology. Recently, two labs have been awarded the National Institute of Dental and Craniofacial Research's (NIDCR) Award for Sustaining Outstanding Achievement in Research (SOAR) R35 grants. Dr. Wu is excited about the discoveries from these two funded labs. Merritt Lab, led by Justin L. Merritt, Ph. D., a professor of restorative dentistry, is researching the roles of polymicrobial synergy and dysbiosis in human health and disease using microbial ecology and genetics approaches and developing novel precision strategies targeting bacteria. Pfeifer Lab, led by Carmem Pfeifer, D.D.S, Ph.D., an associate professor of biomaterials and biomechanics, is developing a filling material that is two times more resistant to breakage than standard fillings. Clinical and translational research also takes root in the OHSU School of Dentistry. Professor-Provisional and Department Chair of Orthodontics, Laura Iwasaki, D.D.S, M.Sc., Ph.D., and Professor-Provisional and Director of Advanced Education in Orthodontics, Jeffrey Nickel, D.M.D, M.Sc., Ph.D. are exploring the mechanobehavior of individuals and its influence on mandibular growth and facial types, which could enable the development of evidence-based dentofacial orthopedic therapies.

If you are interested in contacting Dr. Wu to discuss the research being done at the School or talk about possible opportunities for collaboration, please contact him via email at wuhu@ohsu.edu.



ACADEMIC & SIM LAB UPDATE

During the week of March 16, in-person instruction was canceled, and the simulation (sim) clinic ceased operations due to COVID-19. Since then, didactic courses have been held online, and from March through May, clinical experiences were only available through web-based methods.

In late June, the SoD was able to open the sim clinic in a limited capacity. Sim clinic operations are very different now as compared to pre-COVID standards. From June 29 to July 13, the clinic had to adhere to a 25 person capacity. On July 13, the sim clinic was granted permission to have one person for every 35 square feet. This new rule allowed for 1/2 of a class and instructors to be in the clinic. The space for the clinic is so ample that students and instructors have approximately 100 square feet each.

The School understands that the government or OHSU could shut down the sim clinic if in-person instruction is halted again or to preserve PPE. The SoD's course directors have been working hard to ensure that students get the most out of their sim clinic experience this summer. They have launched a new block format for courses and are continually optimizing clinic best practices. One of the benefits of only working with 1/2 of a class is that the students can access the radiology room when they need it. This allows students to be more efficient with their time in the clinic. The course directors have spent a significant amount of energy re-configuring the sim equipment and materials to accommodate for endodontic, prosthodontic, and pediatric courses.

Dr. Whitten, an associate professor of endodontics, had this to say about the students adapting this new normal, "The students are rolling with the punches. They are pretty determined and resilient. I have not heard any complaints about how things have had to change. They all seem to keep-up a positive attitude." He also shared that a student said that she liked the new block format better. It enables her to put to use the lessons she learned the next day immediately, instead of trying to remember everything for the following week. The course directors are so proud of the students, and they look forward to navigating this new, more intensive clinic environment with them.



Frank G. Everett, M.D.,
D.M.D., M.S. '41



Pictured above: Dr. Everett in
Austria, 1938

"Frank was one of the truly great men in Periodontics. He lived up to all the raves that Balint Orban had for him. Balint said that he thought Frank was one of the most brilliant men that he had known, that he had a computer mind that had almost total recall. He was right. I feel very privileged to have had him as a friend."

- Dr. Claude Nabers, 1982

"Frank Everett - a most highly internationally esteemed specialist in Periodontology. Not enough appreciation can be shown for a man of his caliber, and one cannot praise enough all the things he did; his work will be his monument."

- Dr. Cline Fixott, 1976 Memorial Speech

Dr. Everett's donated archives and rare book collection are available separately through OHSU's online library. The bulk of the archives (Frank G. Everett Papers) date from 1951 to 1975; the rare book collection (Frank G. Everett Historical Collection) dates from 1800 to 1975. These papers, slides, historical documents, and books are part of OHSU's Historical Collections and Archives. Read more [here](#).

SOD BIOGRAPHY

DR. FRANK G. EVERETT

On March 12, 1938, German troops marched into Austria and annexed the nation for the Third Reich. The Nazis immediately began removing non-Aryan academics, doctors, lawyers, and other intellectuals from positions of power. They also started imprisoning those who opposed these actions. At this time, there was an extraordinary cohort of dentists at the Vienna Medical School, now known as *The Vienna Group*. Many of them knew that they would need to flee their homeland to escape persecution. This elite group of dentists made the difficult decision to leave Austria to immigrate to the United States. Their work strengthened the scientific foundations of clinical dentistry, contributed to developing a more robust research establishment, and enlarged the scope of oral biology (Kremenak & Squier, 1997). Dr. Frank Everett was one of these brave and brilliant dentists, along with Bernhard Gottlieb, Balint Orban, Harry Sicher, and a small handful of others. This is his story.

Frank G. Everett was born in Vienna, Austria, in 1907. He graduated from high school in 1925 and studied at the University of Vienna, where he earned his doctorate in medicine in 1932. He was a third-generation M.D.. His father and grandfather also earned their M.D.s at the University of Vienna. From 1930 – 1933, he completed his professional dental training at the Vienna Dental School and was promoted to a dental surgery specialist in 1934, where he assisted Dr. Gottlieb, became the protege of Dr. Orban,



Pictured above: Leonie & Frank on their wedding day



Pictured above: Leonie Everett & Dr. Everett on their Queen Mary voyage

and subsequently, friend and colleague to them both. When Germany annexed Austria, the Dean of the University of Vienna's School of Medicine sent out a letter to faculty stating that anyone who refused to take an oath of loyalty to Hitler would be dismissed (Kremenak & Squier, 1997). Frank and his wife Leonie knew they needed to leave and start a new life in America.

In April of 1939, they left Europe and came to the states on the Queen Mary. Once landing, they were far from done with their travels. They explored their new country to find a place where Dr. Everett could earn his U.S. certifications and degrees to teach, practice, and research dentistry. He had the opportunity to join Dr. Orban at Loyola in Chicago, but Chicago's heat did not appeal to him. He wanted a fresh start in hopefully, a beautiful, peaceful surrounding, and he heard of the small North Pacific Dental College in a bucolic place called Portland, Oregon. During his acceptance speech for the Multnomah County Dental Society's Award for Outstanding Merit and Distinction, Dr. Everett recalled the moment he knew Portland was home. "I came here exactly at this time of the year, and the city was beautiful with all the rhododendrons, azaleas, and camellias, as it is today. I took one look and decided that this was where I wanted to live; I have never regretted it."

Everett earned his D.M.D. in 1941 from North Pacific Dental College and a Master of Medical Science from the University of Oregon Medical School in 1948. He began teaching at the



Pictured on the left: Chamber nights in the Everett residence - Dr. Everett on the right. Close friends and frequent visitors to the house included John Krygier, M.D., and dentists Irving Stern, Declan Anderson, Bob Anderson, Harold Grupe, Herb Laffitte, Hubert Schroeder, Horace Miller, Paul Kunkel, Neil Phatak, Bhim Savara, Hal Noyes, Ellis Jump, Denton Reese, Bob O'Neil, John Wark, Louis Terkla, and Harry Sicher (of the Vienna Group) who loved to go butterfly hunting with his big net and over-sized hat. One of Frank's students, Karl Zeiler, is now a friend of his son Tom, and another student Larry Stinson (now passed) was one of Tom's best friends.



Pictured above: Leonie and Dr. Everett
in their new home, Oregon



Pictured above: Joan, Sue, and Tom

DID YOU KNOW DR. EVERETT?

Would you like to share any kind words or memories with his family? Feel free to do so using [this form](#).



Pictured above: North Pacific Dental College faculty - Dr. Everett is second from the left in the bottom row

dental college while earning his degrees, and upon completing his certifications, started his own practice in downtown Portland. During this time, Leonie and Frank began laying down roots in their new home. They had three children, Joan, Sue, and Tom, who, when they would visit their father's office, would go out to lunch (as a treat) at the nearby *The Hickory Stick* restaurant for a rare roast beef sandwich. The Everetts made it a priority to share their Viennese culture with their children. Twice a month at their house, they hosted small chamber music concerts with Dr. Everett playing the viola and Leonie preparing delicious Austrian pastries for musicians and guests.

At the North Pacific Dental College, which eventually became the Oregon Health Science University (OHSU) School of Dentistry, Dr. Everett conducted research, produced literature, and taught dentistry. He wrote more than 60 papers for national and international dental and medical journals and served as co-author of four editions of



Orban's *Periodontics*. Everett and his colleague, Dr. H. Cline Fixott '38, co-invented the Fixott-Everett Grid in 1963. It was used with oral roentgenography (x-rays) to measure the depth and width of osseous (bone) changes in periodontal disease. They donated all rights to the grid to the University of Oregon School of Dentistry, which sold the grid worldwide and received all profit from the sale (1974). He served on the faculties of both the Dental and Medical Schools from 1939 continuously to his passing in 1976; at the time of his death, he held the rank of Professor Emeritus in the Department of Periodontology. He was a distinguished Fellow of the American Academy of Periodontology, a recipient of the Orban Memorial Award from Loyola University (Chicago), an Honorary Member in Verein Österreichischer Zahnärzte (Vienna), and a Guest Speaker of the Main Address at the Sesquicentennial Celebration for the University of Vienna Dental School in 1971. At the Sesquicentennial Celebration, he was named "Outstanding Alumnus and Teacher," and his portrait hung

alongside the other "Greats of the Vienna Group" (a.k.a., The Vienna Group). This group of dentists produced groundbreaking work that shaped the histopathology and surgical treatment of periodontal disease (Kremenak & Squier, 1997).

On August 31, 1976, Dr. Everett was honored with a posthumous award from the Austrian Ministry of Science and research. Consul Gen. Henry J. Bloch presented the Austrian Cross of Honor for Science and Art, first-class, to Leonie after Frank passed. He was recognized for being one of the most prominent representatives of the Vienna Dental School and for contributing a great deal to the image of Austria through his special gift as a teacher (1976). In December of 1982, OHSU's Frank G. Everett Library opened. It featured his extensive periodontology library, including texts and teaching slides. All of the library content has been digitally converted and can now be accessed through the [Orbis Cascade Alliance Archives](#).

In his 1974 speech to the Multnomah County Dental Society, he shared, "...many of my Viennese friends and colleagues asked whether I would consider returning to my home. I answered them that Vienna was and remained the city of my birth; Portland is my home, America, my country. I feel deeply in debt to it." Dr. Everett passed away two years after this speech. His contributions to dentistry and the field of oral science and particularly periodontology are significant. By coming to the United States, and never ceasing in his work, he was able to help shape modern dentistry. The OHSU School of Dentistry is proud that Dr. Everett's legacy is a part of our history. He was, is, and will continue to be an inspiration.



Pictured above: Dr. Everett at his favorite place, his Oregon beach house in 1971



Pictured above: Dr. Everett in his downtown Portland office

ACKNOWLEDGMENT

The OHSU School of Dentistry would like to thank Tom Everett, son of Dr. Frank Everett, who contributed to the preparation of this biography. He provided all of the photos and materials displayed in the article, and he generously shared his research and insights.

SOURCES

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Kremenak, N., & Squier, C. (1997). *Pioneers in Oral Biology*. Retrieved July 10, 2020, from <https://journals.sagepub.com/doi/pdf/10.1177/10454411970080020101>



Pictured above: Dr. Fixott presenting Dr. Everett with the University's President's Award at the School's Alumni Ceremonies Day in 1974



Pictured above: Vienna Group members Dr. Balint Orban & Dr. Frank Everett, together with co-author Dr. Frank Wentz (left to right), researching their book, *Periodontics* in Colorado Springs, Colorado, 1955



Pictured above: Leonie & Dr. Everett ice skating in Colorado Springs, Colorado, 1955



Pictured above: Dr. Everett in 1974 at the Multnomah County Dental Society's Award Ceremony

Dr. Frank Wentz

THE CONTRIBUTIONS OF THE "VIENNA SCHOOL"
TO PERIODONTICS

"The heritage of the past is the seed that brings forth the harvest of the future" (1). The Heritage of modern Periodontics is rooted in the VIENNA SCHOOL OF BERNHARD GOTTLIEB and his co-workers ORBAN, WEINMANN, KRONFELD, STEIN, EVERETT AND SICKER. Orban called Bernhard Gottlieb "the Father of the Biologic Concept in Periodontics" and dedicated to him the first edition of his book "PERIODONTICS"

"The Biologic concept is still the basis of DIAGNOSIS, TREATMENT PLANNING, THERAPY AND PROGNOSIS. However the concept has evolved from the seed to now include ultra structural, molecular, biochemical and IMMUNO-biologic advances. These findings challenge us to ^{update} ~~also~~ update our methods of therapy. ^{WITH THESE ADVANCES} ~~With these advances~~ the purpose of this book, ^{is to} ~~is~~ to plan a ~~scientific~~ therapy that is tailored for an individual patient. Therapy basically has not changed but the timing of specific therapy has.

The first step is to re-think the classification of Periodontal Disease. Periodontosis as a clinical entity is not accepted by many clinicians. The effects of occlusal traumatism on the periodontium are no longer regarded as a simple cause and effect or only as an aggravating factor in periodontitis. ^{in 1930s} ~~our~~ ^{our} group at Nebraska ^{also} ~~also~~ beginning to question if periodontitis is always a sequel of gingivitis or if some forms of gingivitis are truly destructive periodontal diseases.

The second step is to review the biologic concept of the Vienna School ^{for} ~~get back~~ to the basic fundamentals upon which to build the new scientific advances in immunobiology, microbiology and bio-chemistry.

^{Handwritten:} The Contributions of Bernhard Gottlieb and the Vienna School, circa 1920--1933 ~~1933~~

Pictured above: excerpt from Dr. Frank Wentz's "The Contributions of the 'Vienna School' to Periodontics"



Pictured above: The portrait of Dr. Frank Everett that is on display at The University of Vienna

western union Telegram

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DR HERB LAFFITTE RPT DLY NOM, DLN
SCHOOL OF DENTISTRY OREGON HEALTH SCIENCES UNIVERSITY 611 SOUTHWEST CAMPUS DR
PORTLAND OR 97201
DEAR LEONIE THE HISTORY OF DENTISTRY WILL FOR EVER REFLECT THE FAVORABLE INFLUENCE OF YOUR HUSBAND AND OUR BELOVED FRIEND DR FRANK EVERETT. STUDENTS PRIVILEGGED TO HAVE AS THEIR TEACHER AND MENTOR 1 OF THE WISE SCHOLARS FROM VIENNA ARE DISCIPLINED BY THEIR EXACTING STANDARDS. STANDARDS PREDICATED ON THEIR INTENSE DESIRE THAT TRUTH IN

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SCIENCE AND MEDICINE SHOULD BE THE GOAL OF ALL DEDICATED PROFESSIONALS. IN TURN THEIR STUDENTS WILL BECOME TEACHERS AND THIS INFLUENCE WILL EXTEND TO THEIR STUDENTS AND THIS PHILOSOPHY WILL LIVE INTO ETERNITY OUR LOVE ALWAYS
JACK AND KATHERINE HAYERS
4503 NASSAU
WICHITA FALLS TX 76308

1535 EST
NNNN

Pictured above: A telegram sent to Leonie by one of Dr. Everett's colleagues congratulating her on the Frank G. Everett Library opening



SOCIAL WORK AND DENTISTRY

OHSU Dental Clinics take a comprehensive approach when providing care for patients. The World Health Organization defines good oral health as, "... a state of being free from mouth and facial pain, oral and throat cancer, oral infection and sores, periodontal (gum) disease, tooth decay, tooth loss, and other diseases and disorders that limit an individual's capacity in biting, chewing, smiling, speaking, and psychosocial wellbeing." Based on the above definition, it's safe to say that going to the dentist is essential to ensure general health and favorable quality of life.

Many people face barriers that keep them from going to the dentist. According to the American Student Dental Association, "...the most common obstacles are financial hardship, geographic location, pressing health needs, and poor oral health literacy. Language, education, cultural, and ethnic barriers may compound the problem." Throw in the fact that nearly 75% of U.S. adults have some fear about visiting the dentist, and you can see why it is essential that dental patients are assessed and provided for holistically. The SoD's Social Work Program and social work-based courses help future dentists learn how to address these barriers and fears.

Headed by Rosemarie Hemmings, Ph.D., LCSW, the program is a collaborative partnership between SoD students/residents and social work interns. Together, the students address the psychological and social needs of patients beyond their oral health. The program increases a

patient's access to resources and teaches students and residents how to better interact with their patients.

In a recent interview with the OHSU Foundation, Dr. Hemmings gave an overview of what the Social Work Program entails. "Our social work interns work with providers and patients in the Skourtes Tower Clinic and once a week at the Russell Street Dental Clinic. When patients come in for an appointment, and an issue arises, like the patient is anxious, for example, the dental student can ask the patient if they'd like to speak with a colleague.

The social work intern can then have a brief intervention around relaxation techniques and set up a follow-up appointment.

Dental students then make an official referral. The interns have that real-time interaction with the dental student. Simultaneously, the dental student is learning communication skills and how to best approach psychosocial issues that may arise in conversation. The social work interns and dental students also interact weekly to discuss care coordination, where they can ask questions about active cases. Together,

they're learning how to have a dialogue about how to help the patient best. During their second year of dental school, students are recorded doing their first interview with a patient, and then watch it during class for feedback. Our social work interns participate and talk about their observations — how to adjust communication styles or identify some of the psychosocial issues that weren't addressed." Dr. Hemmings also shared that interns are



Pictured above: Rosemarie Hemmings, Ph.D., LCSW



Pictured above: Social Work Intern, Natalia Michaelson

The social work team will assist patients by reducing identifiable barriers to health and well-being. This will include but is not limited to the following activities:

1. Assessment of patient's psychosocial needs and development of a service plan
2. Linkage to community resources
3. Advocacy on patient behalf when indicated
4. Counseling and education regarding healthy behaviors to promote wellness
5. Engaging patient's support system when clinically indicated

able to provide 450+ hours of care through the SoD's program.

Natalia Michaelson is a social work intern at the School. Her passion for social justice and her desire to help others through counseling led her to this career path. She is currently enrolled in the social work program at Simmons University. As a SoD social work intern, she is responsible for completing intake assessments, collaborating with providers, case management, providing counseling services, and aiding in crisis intervention. Natalia's work with patients through the now phased-out Emergency Dental Care Clinic (EDCC) was crucial. She connected with several patients remotely and addressed their immediate needs by providing resources and supported those feeling particularly anxious in this time of uncertainty.

The most rewarding part of her job is seeing patients feel relief and hopefulness after being linked to the appropriate resources. Her biggest challenge is one that every social worker faces; she sometimes feels limited in her capacity to help. Eligibility requirements, financial obstacles, and limited resources are all factors that make it challenging to help patients as much as she would like to.



At the end of their internship, the interns give a presentation where they are able to propose opportunities to optimize communication methods and clinic best practices that will lead to better addressing the socio-economic and psychosocial needs of the SoD's patients. The 2020 spring term interns were Mia Bean and Prabhjot (Prabby) Pannu. During her internship, Mia observed many student providers presenting treatment plans to patients. She saw that some patients seemed overwhelmed when presented with their care

SCOPE OF THE PRACTICE

THE SOCIAL WORK PROGRAM IS DESIGNED TO AUGMENT AND BE AN INTEGRAL PART OF THE ORAL HEALTH SERVICES OFFERED AT SOD. THE SOCIAL WORK TEAM PROVIDES SERVICES USING A CASE MANAGEMENT MODEL BY SEEKING TO CONNECT PATIENTS WITH RESOURCES AND NAVIGATING CARE SYSTEMS UNTIL SERVICE PLAN GOALS ARE ACHIEVED. IN MOST CASES, THIS WILL PERTAIN TO THE DENTAL TREATMENT THE PATIENT IS RECEIVING; HOWEVER, THIS IS NOT A REQUIREMENT.

options, and their anxiety would often compound once cost came into the conversation. From her observations, Mia was able to come up with a list of the top methodologies she saw that optimized the delivery of these plans and minimized patients' stress. She presented this list during her presentation and suggested that providers use these practices when applicable.

- **Allow patients to discuss with a trusted advisor before committing to the proposal (spouse/friend/family)**
- **Breakdown treatment into smaller phases**
- **Allow for partial presentation of the treatment plan**
- **Discuss affordable options that aren't ideal if they are within the financial constraints of the patient**
- **Present financial options ahead of time to mitigate shock due to the price of treatment**

While Prabby was an intern, she focused on student provider and patient communication. Before a rotation ends or student provider graduates, the student provider must transfer their patients to another provider. During her presentation, Prabby proposed processes that would ensure consistent communication between provider and patient, making the new dental provider hand-off smoother. These were some of her recommendations.

- **Standardize graduation and rotations process**
- **Begin the new dental provider transition process earlier**
- **When a provider change occurs, have a 1:1 meeting between the current and new provider to discuss case**

Students, staff, and faculty attend these presentations and can apply what is shared to enhance their patient communication methods and compassionate care techniques. The work and the insights that the SoD social work interns provide are invaluable to the School of Dentistry and the OHSU Community. By collaborating with the interns, our future dentists gain the skills and tools needed to deliver quality oral health care with compassion.

LEARN MORE ABOUT SOD SOCIAL WORK
THE SOCIAL WORK TEAM ASSISTS STUDENTS, RESIDENTS, AND FACULTY BY PROVIDING DIDACTIC EDUCATION IN THE FORM OF IN-SERVICE TRAINING AND CLASSROOM INSTRUCTION. TOPICS ARE RESEARCHED AND PRESENTED TO STUDENTS, RESIDENTS, AND FACULTY ACCORDING TO AREAS OF INTEREST AND NEED. **SOD** FACULTY ARE CONSULTED IN DETERMINING THE CONTENT AND METHOD FOR SUCH EDUCATION. SUPPORT AND CONSULTATION ARE AVAILABLE TO **SOD** MEMBERS UPON REQUEST. FIND OUT MORE [HERE](#).



HOW I GOT TO DENTAL SCHOOL

KUNAL MANSUKHANI

Kunal is a second-year student (DS2) in the pre-doc DMD program. He attended Barrett, Arizona State University's Honors College, where he earned his bachelor's in Biomedical Science. Growing up, Kunal looked up to his Dad, who is a Hospital Administrator. Kunal knew that he wanted to give back to his community by being a health professional. In high school, he began to explore his career options by volunteering at hospitals and eventually assisting at a dental office. His experience as a dental assistant sparked his passion for dentistry. "Observing the detail, craftsmanship, and science that went into dentistry piqued my interest. More than anything, seeing patients smiling and pain-free after coming for their appointments was a feeling I knew I wanted to foster," said Kunal.

When looking at dental schools, Kunal wanted to stay on the west coast. With this in mind, his top options were UCSF, University of Pacific, University of Washington, and OHSU. He truly enjoyed attending the interviews and seeing what school would be the best fit. For him, OHSU was an easy choice. "I knew from the moment I interviewed with Dr. Bompolaki and Dr. Jones that this school was the place for me. Both of my interviewers joked with me and made me feel like I belonged at the school. The incredible facilities and friendly staff were the icing on the cake. I'm happy to say that Oregon's food and natural beauty have both lived up to the hype as well," he said.

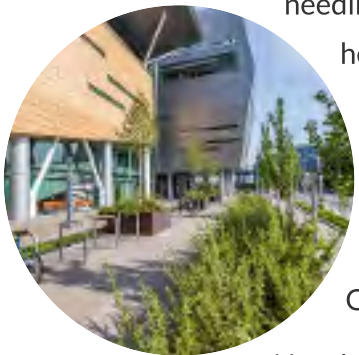
Kunal's favorite part of being a dental student at OHSU is learning from world-renown dentistry experts who genuinely care about him. Kunal's first year of school was



Pictured above: DS2, Kunal Mansukani

demanding, but his faculty's support made the experience enjoyable. Like for many, finding a balance between social time and academics is a challenge for Kunal. He often gets tunnel vision when it comes to his studies and is always needing to remind himself to call home and check-in. If he could go back and give his pre-dental-school-self advice, he would encourage young Kunal to get a job in a dental lab during his undergrad. Dental lab skills would have been invaluable during his first year at OHSU.

Now in his second year, Kunal realizes how quickly the first flew by. He admits that there are tough and emotionally draining moments in school. Still, even in those times, he tries to appreciate this once-in-a-lifetime experience as much as possible. He looks forward to the next three years and is excited to learn from and work with SoD faculty, students, and patients.



CELEBRATE OUR PROFESSOR EMERITUS JUNE AWARDEES

Four of our retiring professors have been awarded the designation of Professor Emeritus! Congratulations, Dr. Barker, Dr. Kaplan, Dr. Shearer, and Dr. Steelman. Thank you for all your contributions to the School of Dentistry and the wider community. Enjoy retirement!



DALE R. BARKER, D.D.S. '90

Dr. Dale Barker obtained his Doctor of Dental Surgery degree from Case Western University, Cleveland, OH, in 1981, after which he became a Commissioned Officer staff dentist in the U.S. Public Health Service, serving in the Indian Health Service in Arizona and Alaska. In 1987, Dr. Barker began his academic career at OHSU as a part-time Assistant Professor in the Department of Endodontology, School of Dentistry teaching in the predoctoral dental clinic. During this early period of his academic career, his excellence in teaching was recognized by receiving the OHSU School of Dentistry, Outstanding Part-time Clinical Instructor for the 1987-1988 year. He entered the OHSU advanced endodontic education program in 1988 and received his certificate in 1990. From 1990 to 2016, he continued to work part-time teaching clinical endodontics at OHSU and running a private practice specializing in endodontics in Gresham, OR. In 1997, he completed the prerequisites for the award of Diplomate of the American Board of Endodontics. In 2009, Dr. Barker was appointed Interim Undergraduate Endodontic Co-Director. Upon his retirement from private practice, he assumed a full-time position at OHSU as interim Director of the Advanced Education Program in Endodontics in 2016 and served until the position was permanently filled. Over 33 years in academia, he has established an exceptional reputation within the School of Dentistry as a kind, collegial, and committed academician, who is generous with his time. His colleagues had this to say about him, "Dr. Barker's sense of humor will be missed; he has kept his students and colleagues both entertained and sane. He has an uncanny ability to know when to pour oil on troubled waters." In retirement, Dr. Barker plans on fly-fishing everyday...if possible.



ROSS G. KAPLAN, B.D.S., M.S.D.

Dr. Ross Kaplan has served as an educator at the OHSU School of Dentistry for 47 years. He earned his dental education in South Africa (BDS) and the UK (FDS). He completed his specialty orthodontics training in London at the Eastman Dental Hospital and earned his D.Orth from the Royal College of Surgeons of England. After coming to the US and graduating from the University of Washington's specialty Orthodontic program with his MSD in 1973, Dr. Kaplan joined OHSU as an Assistant Professor. In 1976 he was promoted to Associate Professor, and in 1988 he became certified by the American Board of Orthodontics. Dr. Kaplan has shared his clinical knowledge gained from running his private practice in orthodontics (1980 – 2009, Salem, OR). In sum, over the past four decades at OHSU, Dr. Kaplan has been integrally involved with didactic, pre-clinical, and clinical graduate courses and direct patient care. Dr. Kaplan has a total of 13 peer-reviewed papers published while at OHSU, which have been cited 182 times. He has made a total of 18 presentations and is an active member of six dental and orthodontic professional organizations. He has served as President of the Oregon State Society of Orthodontists (1996-1997) and as a member of the Education and Research Committee of the Pacific Coast Society of Orthodontists (1981-1985). In addition, he has been a member of the dental honors fraternity Omicron Kappa Upsilon Delta Chapter since 1983. In retirement, Dr. Kaplan plans to volunteer as a part-time faculty member who will be involved with the didactic and pre-clinical education of graduate students. Laura Iwasaki, D.D.S, M.Sc., Ph.D., chair of orthodontics, wanted to share the following with Dr. Kaplan, "Thank you, Ross – for all the knowledge and experiences that you have shared, especially with current and past orthodontic graduate students (OGS) here at OHSU. The OGS, staff, faculty, and patients will miss seeing you in our clinic."



THOMAS R. SHEARER, Ph.D.

Dr. Thomas Shearer, Professor & Chair, Dept of Integrative Biological and Diagnostic Sciences, is a tenured faculty member who has collaborated with various departments at OHSU since he joined us in 1969. He has over 50 years of distinguished service, has taught numerous courses, served an interim role as Chair of Biochemistry and Molecular Biology at the School of Medicine in 2003-2004, Associate Dean for Research at the School of Dentistry 1996-2000, has received research funding from 1973-present, and published over 160 scientific articles. He has been acknowledged for his exemplary work with honors and awards, including the Distinguished OHSU Faculty Senate Award in Leadership in 2005 as well as Research in 1998. After he retires, he still plans to volunteer, teach, facilitate small group sessions at the School of Dentistry, and do research.



ROBERT J. STEELMAN, M.D., D.M.D.

Dr. Robert Steelman is a valued faculty member that began his work with OHSU in Pediatric Critical Care Medicine, Department of Pediatrics, in 2001, and was promoted to Professor of Pediatric Critical Care Medicine/Anesthesiology/-Perioperative Medicine in 2015. He earned his D.M.D. from the Washington University School of Dental Medicine, St. Louis, Missouri, in 1982 and, after doing so, started a prolific career with a focus on pediatrics. In 1993, Dr. Steelman went on to earn his M.D from the West Virginia University School of Medicine in Morgantown, West Virginia. From 1989-2000, he taught and led at the West Virginia University School of Medicine and in 2000 was the Medical Director of the Pediatric Intensive Care Unit at St. John's Regional Health Care Facility in Springfield, Missouri. He joined the OHSU School of Dentistry in 2008 and developed a hospital-based Pediatric Dentistry Residency program aligned with the Department of Pediatrics at Doernbecher Children's Hospital. His roles in the School of Dentistry include being the Chair of the Pediatric Dentistry Department, as well as the Associate Dean of Hospital Dental Services since 2018. He has been instrumental in keeping the dental school aligned and involved with the hospital over his career at OHSU. Dr. Elizabeth Palmer has worked with Dr. Steelman for over 12 years. She had this to say about him, "I have learned countless lessons from him. One is that a coffee, a cookie, and an impromptu hallway discussion always lifts the spirits. Dr. Steelman will be very missed!" With a long list of accomplishments, Dr. Steelman has been involved in six committees, scientific research since 1989 and awarded nine grants, six education grants, five fellowships, has written 44 publications and many abstracts, developed curriculum for pediatrics and sedation, and has been acknowledged for his exemplary work with 17 honors and awards since 1982.

ABOUT THE TITLE "PROFESSOR EMERITUS"

Emeritus is an honorary title for a retired faculty member, recognizing distinguished past service to the institution. It is conferred in writing by the provost upon the recommendation of the department chair and dean or free-standing research center or institute director.

For more information, please click [here](#).

Howard Freedman, D.D.S.



SOD PROFILE: DR. HOWARD FREEDMAN

In October 2019, the School of Dentistry named Howard Freedman, D.D.S., the Orthodontic Clinic's new Director. Dr. Freedman knew from a very young age that he wanted to be a healthcare provider and thought that being an MD was his route. That was until he had a conversation about his career with his Endodontist father and was convinced that dentistry was a better fit. In dental school at UCLA, Dr. Freedman decided to focus his career on orthodontics and completed a residency at UC San Francisco, where he earned a certificate in orthodontics. He likes how orthodontics focuses on the entire occlusion rather than on individual teeth and that, on average, patients tend to be younger. Dr. Freedman loves working with kids and enjoys the positive vibe that is often felt in orthodontic offices.



Pictured above: Dr. Freedman with his family exploring the Gorge.

After practicing in California for a couple of years, he decided to move to Oregon to pursue his own private practice. In 1998, he accomplished his goal by purchasing the practice of Dr. Stephen Danchok in Canby, Oregon, which eventually became Freedman Orthodontics. Since opening his office, he, his family, and his employees have been active in their community. His office has sponsored the Canby Summer Fun Camp and many patients' teams, clubs, and organizations. Dr. Freedman is always looking for ways to get involved with the communities that he is a part of.

While Dr. Freedman was in school, he had several teachers and professors who positively impacted his life and career. These individuals inspired him to look into teaching. In 2007, he decided to cold-call Dr. Dave Covell, who was Chair of the School of Dentistry's Orthodontics Department at that time, to see if there were any

available teaching opportunities. It just so happened that Dr. Covell needed a Cephalometric instructor and asked if Dr. Freedman wanted to teach that class to the residents. Dr. Freedman jumped at the chance, and soon after, he was teaching a half-day sessions in the clinic as well. Working with the residents is what Dr. Freedman likes most about being a professor. He finds their enthusiasm to be contagious, and he delights in being challenged by their questions and being inspired by their ideas.

Now in his 13th year with OHSU, he has taken on this new challenge of being Clinic Director of the Orthodontic Clinic. When asked what his plans are for the clinic, Dr. Freedman had this to say, "Going forward, I will continue to focus on clinic administration, teaching, and supporting the residents and other full-time faculty in the department." He also shared his pride for the efforts that are being put forth by SoD members to reopen the Orthodontic Clinic during this time of COVID-19. "The work of others in the school has been amazing," he said. "I feel good about the plans going forward with the focus on remaining safe and moving slowly, and I will be working with others in the department and school to help implement the measures needed for our clinic to reopen fully."

Dr. Freedman is an outdoorsman. When he is not in the clinic, you can find him in the woods - hiking, skiing, and running. During this time of remote work, he has loved going on daily walks and doing online Yoga with his wife. He has also treasured the time he has spent with his son in high school and college-aged daughter while they have been doing school from home.

ABOUT OHSU'S ORTHODONTICS SERVICES

THE OHSU SCHOOL OF DENTISTRY'S ORTHODONTIC CLINIC IS COMMITTED TO PROVIDING THE HIGHEST QUALITY ORTHODONTIC TREATMENT FOR CHILDREN AND ADULTS. SERVICES ARE PROVIDED FOR THE CORRECTION OF RELATIVELY MINOR TO THE MOST SEVERE ORTHODONTIC PROBLEMS. OUR CLINIC IS A STATE-OF-THE-ART FACILITY THAT OVERLOOKS DOWNTOWN PORTLAND WHERE WE PROVIDE TREATMENT USING TRADITIONAL OR ESTHETIC (WHITE) BRACES AND CLEAR ALIGNERS.



DR. BARRY TAYLOR '95 NAMED ODA EXECUTIVE DIRECTOR

Barry J. Taylor, DMD, a longtime leader in the Oregon dental community, has been named Executive Director of the Oregon Dental Association (ODA), a nationally recognized 2,300 member professional association providing member service, continuing education, practice support and legislative advocacy.

An accomplished clinician, educator and mentor in the dental profession, Dr. Taylor is known as an innovative leader and passionate advocate for the Oregon Dental Association, serving as its President and prior to that, serving as the Editor. He is also an Assistant Professor in Restorative Dentistry at the Oregon Health & Science University School of Dentistry and in private practice at Woodburn Community Dental.

“Dr Taylor's leadership and passion for Oregon dentists will help lead us into a new chapter for the association,” said Brad Hester, DMD and President-Elect of the ODA Board of Trustees. “We are deeply grateful for his leadership in managing our response during the Covid-19 crisis and look forward to the powerful impact he will continue to have as the voice of advocacy for Oregon’s dental community.”

Dr. Taylor’s extensive involvement in organized dentistry for 25 years includes other leadership positions with the Oregon Academy of General Dentistry, the American College of Dentists, the Academy of General Dentistry, and the American Dental Association.

“I am very excited for this opportunity to work for our Association,” said Dr. Taylor. “I grew up in the Oregon dental community and am honored to now be in a position to help guide us into the future.”

Dr. Taylor is the recipient of numerous honors and awards including “Dentist of the Year” from both the Oregon Academy of General Dentistry and the Washington County



Pictured above: Dr. Barry Taylor, Executive Director of the ODA

Dental Society and is a frequent national lecturer in the dental industry. He received a D.M.D. from Oregon Health & Science University School of Dentistry and attended Oregon State University. Dr. Taylor assumed his responsibilities as Executive Director of the Oregon Dental Association on July 13, 2020. As of July 10, he stepped down as the Oregon Dental Association’s President, with Dr. Hester taking over for the remainder of the term.

Dr. Taylor wanted to share the following message with the SoD. "I love the SOD community, both the instructors and staff that I worked with and the wonderful students. I certainly grew a lot during my eight years at the dental school, surrounded by some very stellar individuals who were inspirational to me. As I move into association management, I will miss the collegial culture of the School and hope to bring that element of respect to the culture here at the ODA. Thank you so much, and I am fortunate that my new job will often bring me to the School, so I didn't feel a need to say "goodbye" as I hope to be a frequent visitor."

Thank you, Dr. Taylor, for your years of service to the SoD. We look forward to seeing you around!

SOURCE: [ODA Press Release](#)



RESEARCH RECOGNITION

The School of Dentistry's researchers transform dentistry every day with their findings. Whether it is in the lab, the clinic, the community, or the larger world, their work is bringing to light amazing discoveries that are innovating and elevating dental healthcare. Each month, we will feature some of the excellent work our researchers are doing through the School of Dentistry.

LEGO-INSPIRED BONE AND SOFT TISSUE REPAIR WITH TINY, 3D-PRINTED BRICKS

BY: FRANNY WHITE



Oregon Health & Science University researchers have developed a tiny, 3D-printed technology that can be assembled like Lego blocks and help repair broken bones and soft tissue. (OHSU)

Tiny, 3D-printed bricks have been designed to heal broken bones - and could one day lead to lab-made organs for human transplant.

Inspired by Lego blocks, the small, hollow bricks serve as scaffolding onto which both hard and soft tissue can regrow better than today’s standard regeneration methods, according to [new research](#) published in Advanced Materials. Each brick is 1.5 millimeters cubed, or roughly the size of a small flea.

“Our patent-pending scaffolding is easy to use; it can be stacked together like Legos and placed in thousands of different configurations to match the complexity and size of almost any situation,” said Luiz Bertassoni, Ph.D., who led the technology’s development and is an associate professor in the OHSU School of Dentistry and an associate professor of biomedical engineering in the OHSU School of Medicine.



Pictured above: Dr. Bertassoni



Pictured above: Dr. Subbiah

“OUR PATENT-PENDING SCAFFOLDING IS EASY TO USE; IT CAN BE STACKED TOGETHER LIKE LEGOS AND PLACED IN THOUSANDS OF DIFFERENT CONFIGURATIONS TO MATCH THE COMPLEXITY AND SIZE OF ALMOST ANY SITUATION.”

LUIZ BERTASSONI, D.D.S., PH.D.

Bertassoni partnered with colleagues from OHSU, University of Oregon, New York University and Mahidol University in Thailand to develop and evaluate the technology.

When stacked together, the microcages are designed to repair broken bones better than today's methods. Orthopaedic surgeons typically repair more complex bone fractures by implanting metal rods or plates to stabilize the bone and then inserting bio-compatible scaffolding materials packed with powders or pastes that promote healing.

A unique advantage of this new scaffolding system is that its hollow blocks can be filled with small amounts of gel containing various growth factors that are precisely placed closest to where they are needed. The study found growth factor-filled blocks placed near repaired rat bones led to about three times more blood vessel growth than conventional scaffolding material.

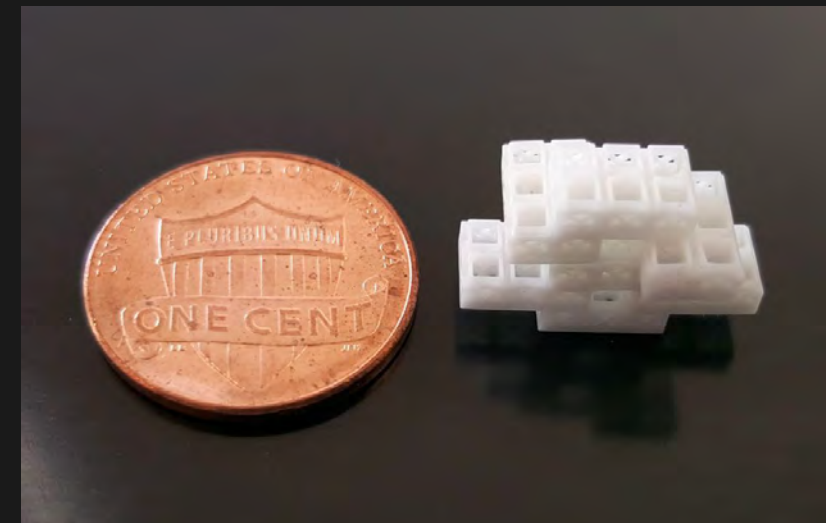
"The 3D-printed microcage technology improves healing by stimulating the right type of cells to grow in the right place, and at the right time," said study co-author Ramesh Subbiah, Ph.D., a postdoctoral scholar in Bertassoni's OHSU lab who specializes in growth factor delivery. "Different growth factors can be placed inside each block, enabling us to more precisely and quickly repair tissue."

The small devices are modular and can be assembled to fit into almost any space. When piecing together block segments containing four layers of four-bricks-by-four bricks, the researchers estimate more than 29,000 different configurations can be created.

Bertassoni and colleagues also imagine their 3D-printed technology could be used to heal bones that have to be cut out for cancer treatment, for spinal fusion procedures and to build up weakened jaw bones ahead of a dental implant. And, by changing the composition of the technology's 3D-printed materials, they envision it could also be used to build or repair soft tissues. With significantly more research, they hope the modular microcage approach could even be used to make organs for transplant.

Bertassoni and his team will further explore the microcages' performance in bone repair. They plan to test the technology's ability to repair more complex bone fractures in rats or larger animals.

This research was supported by National Institute of Dental and Craniofacial Research (grants R01DE026170, 3R01DE026170-03S1), Michigan-Pittsburgh-Wyss Resource Center's Regenerative Medicine Resource Center and OHSU Fellowship for Diversity and Inclusion in Research.



Each brick is 1.5 millimeters cubed, or roughly the size of a small flea. (OHSU)

REFERENCE: Ramesh Subbiah, Christina Hipfingr, Anthony Tahayeri, Avathamsa Athirasala, Sivaporn Horsophonphong, Greeshma Thrivikraman, Cristiane Miranda França, Diana Araujo Cunha, Amin Mansoorifar, Alena Zahariev, James M. Jones, Paula G. Coelho, Lukasz Witek, Hua Xie, Robert E. Guldberg, Luiz E. Bertassoni, 3D printing of microgel-loaded modular Lego-like microcages as instructive scaffolds for tissue engineering. *Advanced Materials*, July 23, 2020, DOI:10.1002/adma.202001736, <https://onlinelibrary.wiley.com/doi/10.1002/adma.202001736>

"THE 3D-PRINTED MICROCAGE TECHNOLOGY IMPROVES HEALING BY STIMULATING THE RIGHT TYPE OF CELLS TO GROW IN THE RIGHT PLACE, AND AT THE RIGHT TIME. DIFFERENT GROWTH FACTORS CAN BE PLACED INSIDE EACH BLOCK, ENABLING US TO MORE PRECISELY AND QUICKLY REPAIR TISSUE."

RAMESH SUBBIAH, PH.D.



SOURCE: Franny White's [Online Article](#)