

# DENTAL BITES



School of  
DENTISTRY



JUNE  
2020

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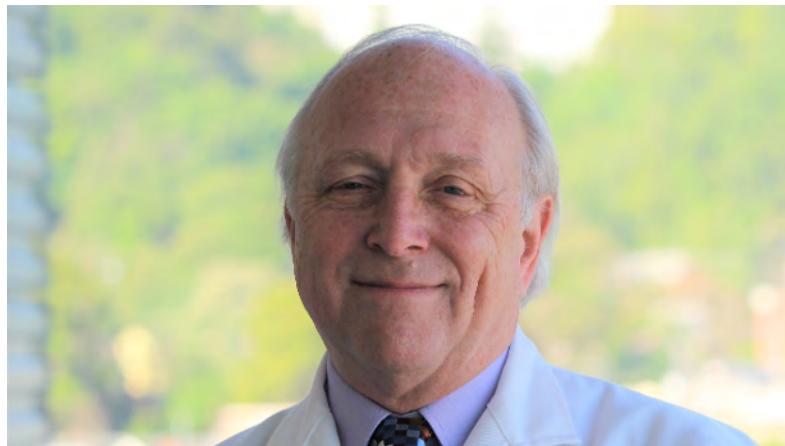
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Thank You EDCC Faculty & Staff!

Research Recognition

# A LETTER FROM THE DEAN



Dear Alumni & Friends,

As our country attempts to process the senseless deaths of George Floyd, Breonna Taylor, Ahmaud Arbery, and many others, I recognize and feel the suffering, outrage, and concern of our community deeply. All of this is happening amid COVID-19, which brings to light, even more, the health and economic disparities that are in our state and nation. The School of Dentistry cares – not only about oral health but about the welfare and rights of the people who make up our community. We stand for justice, we stand against racism, we must never be indifferent to human suffering, we believe Black Lives Matter, and we need to continue trying to make the SoD the healthy, equitable, and inclusive place that we desire it to be. In a recent [letter](#) shared by President Jacobs, he has called for OHSU members to commit to dismantling racism at our university, in the health care industry, and our country. The School endorses this message wholeheartedly. Feel free to reach out to me if you would like to share your suggestions and ideas on how the SoD can be more supportive and welcoming.

On June 19th, 2020, Multnomah County entered Phase 1 of Governor Brown's reopening plan. Phase 1 will have minimal impacts on OHSU operations. OHSU is still in Modified Operations, and this won't change until University leadership determines that we are ready. The School's Emergency Dental Care Clinic (EDCC) has been serving patients who have true dental emergencies since March. Now that the School has entered Phase 1, OHSU's Dental Clinics are gradually reopening, starting with a limited number of appointments. Not all services are available at this time. Our goal is to remain compliant with Governor Brown's guidelines and consistently follow OHSU policy and best practices. The infrastructure that the EDCC established to carry-out procedures during the pandemic has greatly helped in the first part of our reopening. The EDCC discontinued operations at the end of June.

On June 7th, the University and the School of Dentistry celebrated our graduating class through a virtual Convocation and Hooding Ceremony. These events recognized our 75 new D.M.D.s and honored 18 post-doctoral residents. I am so impressed with the resilience of this class, and I know that you all have the fortitude to face this new era of dentistry. I am excited to see how they embrace and influence it. In this edition, you will learn more about our Class of 2020.

The Summer term is here! We will continue holding didactic classes online and will have limited clinic opportunities for our students. The great news is that we are also able to open the simulation laboratory on a limited basis, following social distancing rules. The students and faculty are excited to have it opened, even on a limited basis. Therefore, the students in the classes of 2022 and 2023 are continuing to develop the pre-clinical skills they will need for patient care (we will update you next month on how that goes). Our research labs are also in the process of returning to operations. In our July edition, we will be sharing additional information on how the SoD is transitioning into the "new normal." I want to take a moment to thank all who are helping in this endeavor. I look forward to seeing what the School of Dentistry will look like in the future.

Sincerely,

Phil

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

## BE IN THE KNOW

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

Click on the logos below:



# 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](mailto:bites@ohsu.edu).

## 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](mailto: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](#)



## Congratulations Class of 2020



For more than 120 years, the OHSU School of Dentistry has had the honor of graduating leaders in their respective fields. Our graduates represent the bright future of oral health care, exhibiting compassion, and impeccable clinical skills. There is no doubt that the class of 2020 will continue this long-lived tradition.

Phillip Marucha, D.M.D., Ph.D.,  
Dean of the School of Dentistry



# 2020 CONVOCATION & HOODING CEREMONY

A new generation of health care professionals, educators, and researchers have graduated from OHSU this month. Due to the coronavirus pandemic, graduation ceremonies were held virtually on June 7, 2020.

The featured Convocation speaker was Joan Y. Reede, M.D., M.S., M.P.H., M.B.A., who is the dean for diversity and community partnership at Harvard Medical School.

Separate ceremonies for the schools of medicine, dentistry, nursing, and the OSU/OHSU College of Pharmacy were held on the same day.

To share their virtual celebration with their classmates, graduates were encouraged to use #OHSUSoD, #OHSUgrad2020, #OHSUgrad, #OHSUclassof2020, and #OHSU when posting about their personal graduation festivities on social media.

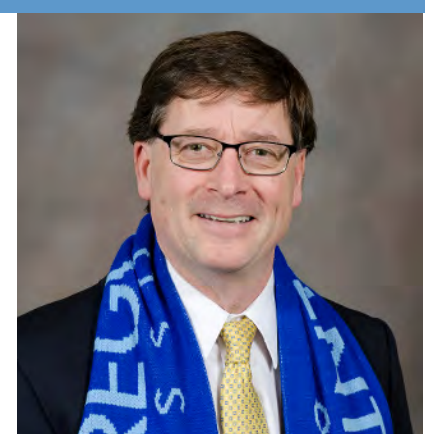


“At a pace that few could have imagined, COVID-19 has changed the way we live, learn and work,” said OHSU President Danny Jacobs, M.D., M.P.H., FACS. “Although enhancing the health and well-being of others has long provided health care professionals, educators and researchers with purpose and drive, this pandemic has placed a global spotlight on our efforts, and the next generation of OHSU graduates will play a critical role in advancing human health in a post-pandemic world.”

### WORDS OF WISDOM FOR THE CLASS OF 2020

*"I SPEAK TO YOU AS THE OREGON DENTAL ASSOCIATION (ODA) PRESIDENT, TO ENCOURAGE YOU TO STAY CONNECTED. ATTEND THE LOCAL DENTAL SOCIETY MEETINGS, JOIN THE STUDY CLUB, AND MAKE IT A HABIT TO GO OUT WITH COLLEAGUES TO DISCUSS DENTISTRY, LIFE, AND PPE."*

BARRY TAYLOR, D.M.D.  
PRESIDENT, OREGON DENTAL ASSOCIATION



Pictured above: ODA President, Dr. Barry Taylor



Pictured above: Alumni Association Board of Directors President, Dr. John Kloucek



Pictured above: Associate Dean for Patient Services, Dr. Peter Morita



Pictured above: Sellwood Group Practice Leader, Dr. Michele Pindyck

The OHSU School of Dentistry awarded 92 D.M.D. and post-doctoral degrees.

The School's virtual Hooding Ceremony started with a warm welcome address from Dr. Phillip Marucha. It then featured greetings from the Oregon Dental Association - presented by ODA President, Dr. Barry Taylor, and greetings from the School of Dentistry Alumni Association - presented by the President of the Alumni Association Board of Directors, Dr. John Kloucek. Dr. Bryan Schofield, Dr. Heather Howell, and Dr. Jacob Kaufman, all members of the D.M.D. Class of 2020, addressed their class, and the Dean's Address proceeded after their speeches. The Group Practice Leaders then announced each of their graduates with a corresponding slide that showed the graduate's picture, listed their awards, and shared their plans after graduation. The School's prestigious Peglow Award, usually presented at the annual in-person School of Dentistry's Awards Ceremony, was presented to Dr. Heather Howell by Associate Dean of Patient Services, Dr. Peter Morita. Assistant Professor, Dr. Michele Pindyck, then led the Dental Pledge, and the ceremony concluded with closing remarks from Dr. Marucha.

The School of Dentistry would like to thank all the presenters and speakers for these events. The recordings for these events are provided below.



Click the above arrow to watch the School of Dentistry's Virtual Hooding Ceremony



Click the above arrow to watch OHSU's Virtual Convocation Ceremony

### WORDS OF WISDOM FOR THE CLASS OF 2020

*"YOU HAVE GRADUATED FROM THE OHSU SCHOOL OF DENTISTRY AND ARE NOW OFFICIAL MEMBERS OF THE ALUMNI ASSOCIATION. ALUMNI ASSOCIATION HAS MUCH TO OFFER, AND I HOPE YOU ALL USE THAT TO YOUR ADVANTAGE."*

JOHN D. KLOUCEK, D.M.D.  
PRESIDENT, ALUMNI ASSOCIATION BOARD OF DIRECTORS





# CLASS OF 2020 AWARDS

Congratulations to the 2020 award recipients! The School of Dentistry's faculty, staff, and students are so proud! Our graduates are a testament to the dental profession and the legacy of the OHSU School of Dentistry.

## AWARDS ARE LISTED ALPHABETICALLY

**Academy of Dental Materials Award**  
Awarded to the most outstanding student researcher in the field of dental materials.  
Recipient: Anna V. Beers

**Academy of General Dentistry Award**  
Awarded to the students who exemplify the traits of a health care professional: excellence in communication, empathy, and skill in the treatment of patients.  
Recipients: Bryan M. Schofield, Maikhanh Tran

**Academy of Operative Dentistry Award**  
Awarded to the student who has exhibited outstanding achievement in operative dentistry.  
Recipient: D. Chase Carlson

**Academy of Osseointegration Implant Dentistry Award**  
Awarded to the student exhibiting outstanding achievement in the study of implant dentistry.  
Recipient: Michael Baily

**American Academy of Esthetic Dentistry Student Award of Merit**  
Awarded to the student exhibiting outstanding achievement in the pursuit of excellence in the study of esthetic dentistry.  
Recipient: Brie'el T.M. Wiles

**American Academy of Implant Dentistry Award**  
Awarded to the student exhibiting academic and clinical excellence in implant dentistry.  
Recipient: Aaron G. Compton

**American Academy of Oral & Maxillofacial Pathology Award**  
Awarded to the student who has demonstrated exemplary aptitude and achievement in oral and maxillofacial pathology.  
Recipients: Nicholas Ahn

**American Academy of Oral & Maxillofacial Radiology Achievement Award**  
Awarded to the student who has demonstrated the greatest interest and accomplishment in oral and maxillofacial radiology.  
Recipient: Dar Yoon

**American Academy of Oral Medicine Award**  
Awarded to the graduating senior who shows promise, academic achievement, and interest in the discipline of oral medicine.  
Recipient: Grace M. Heise

**American Academy of Periodontology Award**  
Awarded to the senior student who exemplifies excellence in periodontology both in didactics and patient care.  
Recipient: Aaron G. Compton

**American Association of Oral & Maxillofacial Surgery Award**  
Awarded to the student who has demonstrated outstanding interest, promise and dedication to the discipline of oral and maxillofacial surgery and anesthesiology.  
Recipients: Michael Baily

**American Association of Oral & Maxillofacial Surgery Dental Implant Student Award**  
Awarded to the student exhibiting outstanding performance in undergraduate study and clinical training in the area of dental implant placement.  
Recipient: Brandon M. Wilburn

**American Association of Orthodontists Award**  
Awarded to the senior dental student who demonstrates exceptional interest in craniofacial development, as well as in the orthodontic care of patients.  
Recipient: Skylar D. Steel

**American Association of Public Health Dentistry Award**  
Awarded to the students who have demonstrated both special interest and outstanding achievement in community dentistry and dental public health.  
Recipient: Bryan M. Schofield, Scarlett K.A. Kettwich

**American College of Dentists Rick Asai Ethics & Professionalism Award**  
Awarded to the student who has displayed outstanding professionalism, ethical demeanor, and potential for positive impact on the profession of dentistry.  
Recipient: Soondis M. Habil

**American College of Prosthodontists Predoctoral Student Prosthodontic Achievement Award**  
Awarded to the student who demonstrates outstanding academic excellence and clinical proficiency in prosthodontics.  
Recipients: Brandon M. Wilburn

**American Dental Society of Anesthesiology Student Award**  
Awarded to the senior student who has demonstrated proficiency in the field of dental anesthesiology.  
Recipient: Erik N. Quintana

**Certificate of Merit AAPD Predoctoral Student Award**  
Awarded to the student who shows the most promise in pediatric dentistry.  
Recipient: Alyssa N. Avila

**Certificate of Merit Oregon Academy of Pediatric Dentistry**  
Awarded to the student exhibiting outstanding achievement in and dedication to pediatric dentistry.  
Recipient: Bryan Baker

**Hanau Best of the Best Prosthodontic Award**  
Awarded to the student who demonstrates outstanding knowledge and skill in the study and practice of prosthodontics.  
Recipients: Brandon M. Wilburn

**Integrative Biomedical and Diagnostic Sciences Departmental Award in Oral Biology**  
Awarded to the student who has demonstrated aptitude, enthusiasm, and future promise in education and research in oral biology.  
Recipient: Alyssa N. Avila

**International College of Dentists Student Humanitarian Award**  
Awarded to the student who has demonstrated significant leadership and exemplary character traits when participating in humanitarian service or projects.  
Recipient: Jillian Smith

**International College of Dentists Student Leadership Award**  
Awarded to the student who has demonstrated conspicuous professional growth during his/her student years; a person who shows high potential for significant contribution to the profession.  
Recipient: Scarlett K.A. Kettwich



**The James S. Tinkle American Association of Endodontists Award**  
Awarded to the student demonstrating the greatest proficiency in endodontics during his/her undergraduate dental education in honor of Dr. James S. Tinkle.  
Recipient: Tembre' DeLong

**Jerome Schell/Gary Wilson Oral & Maxillofacial Surgery Memorial Award**  
Awarded to the student exhibiting outstanding performance in the clinical discipline of oral and maxillofacial surgery.  
Recipients: Zanyar Darvishi

**Oregon Dental Association Leadership Award**  
Awarded to the student who has demonstrated outstanding ability as a strong leader amongst their peers.  
Recipient: Bryan M. Schofield

**Oregon Society of Periodontists Award**  
Awarded to the outstanding senior dental student in periodontics.  
Recipient: Geoffrey Houf

**PDA Advanced Education Recognition Award**  
Permanente Dental Associates offers a recognition award to five students who are advancing their dental education through a Specialty Training Program.  
Recipient: Aaron G. Compton, B. Reza Farham, Jeffery Rawley, Jillian Smith, Skylar D. Steel

**Quintessence Award for Clinical Achievement in Periodontics**  
Awarded to the student exhibiting outstanding achievement in periodontics.  
Recipient: D. Chase Carlson

**Quintessence Award for Clinical Achievement in Restorative Dentistry**  
Awarded to the student exhibiting outstanding achievement in restorative dentistry.  
Recipient: Hatai Jivagunchainan

**School of Dentistry Alumni Association Go the Extra Mile Award**  
Awarded to the student nominated by the class who demonstrates outstanding service and character and is giving of their time and energy to their classmates and the dental school  
Recipient: Bryan M. Schofield

**School of Dentistry Alumni Association Outstanding Faculty Award**  
Awarded to a faculty member nominated by the student body who plays an outstanding role in nurturing students as individuals and professionals. They demonstrate a strong ability to help students develop clinical skills and professional relationships with peers, faculty and patients.  
Recipient: Alejandro R. Carrion, DMD

**Sorum-Xia Award in Endodontics**  
Awarded to the student who has demonstrated outstanding achievement in endodontics and is the winner of the annual Larry Sorum Memorial Case Presentation Competition.  
Recipient: Tembre' DeLong

**Valentine Brown & Dori L. Drumm Rural Health Scholars**  
Awarded to senior students who intend to deliver oral health care in rural communities throughout their education and beyond.  
Recipients: Hailey Dodson, Heather M. Ries

**Western Society of Periodontology Award**  
Awarded to the student who has shown a special interest and demonstrated proficiency in pre-doctoral periodontics, demonstrated professionalism and provided evidence-based dental care for his/her patients.  
Recipient: Sarah Kang

**Omicron Kappa Upsilon, Delta Chapter**  
OKU is the National Dental Honor Society established to promote and recognize scholarship and character among students of dentistry.  
2020 Dental Honor Society Alumni Members: Bryan Baker, Eric Bortnem, D. Chase Carlson, Hatai Jivagunchainan, Courtney V. Levasa, Jeffery Rawley, Skylar D. Steel, Brandon M. Wilburn

**School of Dentistry Alumni Association Award in Memory of Stephen P. Peglow**  
Awarded to the senior dental student who possesses those qualities most desirable in a dentist including integrity, humility, compassion, skill, sensitivity to patient needs, and dedication to service; nominated by the senior class, then selected by the class and the faculty.  
Recipient: Heather Howell

# GRADUATE PROFILE

ZANYAR DARVISHI, D.M.D.

Zanyar came to the United States on his own ten years ago from Iran. He learned English independently by attentively listening to his professors and peers while he was an undergraduate student at Portland Community College and Portland State University (PSU).

His father is his hero. Zanyar’s mother passed away when he was 15 years old, and his father raised three children on his own. “He’s my source of encouragement. His patience, understanding, and belief have shaped me into who I am today,” said Zanyar.

Darvishi studied chemistry and biology at PSU. In Iran, students in their last year of high school take an exam to determine their area of study in college. When Zanyar took the exam, he was placed in a civil engineering program. Although he loves science and math, Zanyar wanted to be a dentist. He came to the United States to choose the direction of his life and have the opportunity to work hard to accomplish his personal and professional goals.

To Zanyar, dentistry is a combination of science, art, and helping people. He also enjoys working with his hands, which he says makes him unique in his family. His father worked for an administrative office, his one sister is an accountant, and the other has her Master’s degree in English and teaches. He is excited about being the first dentist in his family.

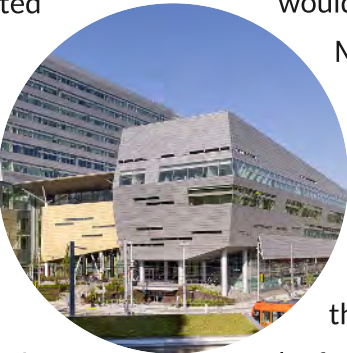
When asked about the people who supported him at OHSU, Zanyar had this to say, “I would like to say thank you to all of



Pictured above: Dr. Zanyar Darvishi

my faculty over the past four years. I was lucky to have them as mentors, instructors, and true supporters. Thank you to Dr. Richard Knight and Dr. Franci Stavropoulos, for believing in me and encouraging me throughout the program. Also, I would like to give a special thank you to Dr. Rose McPharlin. As my group leader, she was amazing and inspired me.”

After graduation, Zanyar will be a resident in OHSU’s Advanced Education General Practice Residency Program. He is thrilled to be a part of the program and continue his career at OHSU. In the future, he plans to pursue a residency with an Oral and Maxillofacial Surgery Program to become an Oral Surgeon.





# THANK YOU EDCC FACULTY & STAFF

EDCC IS PHASING OUT AT THE END OF JUNE

On June 19, 2020, all of Oregon officially entered into Phase 1 of reopening. Phase 1 is the first stage of Governor Brown's plan to build a state-wide infrastructure that allows Oregonians to stay safe while COVID-19 still poses a threat. It includes limiting the reopening of restaurants and bars, personal services, gyms, and malls. Gatherings of up to 25 people are allowed for recreational, social, cultural, civic, or faith events – with physical distancing requirements.

OHSU Dental Clinics are currently offering a limited number of appointments as part of our gradual reopening plan. Not all services are available at this time. The goal is to remain compliant with Governor Brown's guidelines and consistently follow OHSU policy and best practices. The health and well-being of our patients, dental care providers, and employees are our top priority. The reopening has been smooth thanks to the groundwork that was



established by the faculty and staff of the Emergency Dental Care Clinic (EDCC).

When COVID-19 began to impact our community, OHSU Dental Clinics understood that emergencies don't wait...not even for a pandemic. Dental infections can be life-threatening if not treated appropriately. The vast majority of dental clinics and practices in Oregon were forced to shut down due to a lack of PPE. The School of Dentistry worked with the hospital and was able to secure the PPE needed for the EDCC to treat patients and non-patients with true dental emergencies starting in March. The EDCC will phase-out in the last week of June. **Karan J. Replogle**, D.D.S., M.S., Chair of Endodontics, led the EDCC. Her managerial team on the ground was comprised of the following people:

- Brian Stief, PAS Supervisor & Patient Services Manager
- Cynthia Compton, Faculty Dental Practice Manager
- Megan Sage, Associate of Director of Clinical Operations
- Karla Kent, Professor & Director of Quality Improvement
- Kelly Whitten, Pre-Doc Practice Manager



Pictured above: a member of the  
PAS Team

## SERVICES PROVIDED

Since Monday, March 23, 2020, the EDCC has been providing care for patients with true dental emergencies. Find out what the ADA's definition of a dental emergency [here](#).



Pictured above: a member of the  
Sterilization Team

## EDCC MISSION

*To carry on OHSU's mission of improving the health and well-being of Oregonians during the pandemic and help minimize the number of patients who visit the ED to allocate OHSU's limited resources better.*



Pictured above: EDCC team members sterilizing the clinic

- Lisa DiTommaso, Operations Manager
- Mari Hiner, Sterile Processing & Inventory Manager

These leaders helped organize and manage the care of 500+ patients from March - June. Care was administered in-person and through teledentistry. They are incredibly thankful to all who contributed to the EDCC, and they wanted to share some words of appreciation.

***The SOD has an amazing PAS team that is resourceful, creative and is not only committed to our patients' health and well-being, but all coworkers providing the care. The PAS crew is committed to teamwork and assisting each other with learning new tasks no matter their role, position, or if they are teleworking or are at RLSB. They rock! - Brian Stief***

***A BIG shout out to all the Dental Assistants. Thank you for your time and efforts! - Cynthia Compton***

***A big thank you to the Appointment Center Team! This group fielded an average of 500 calls a week, March - April, which jumped in May, and is now over 800 calls in June. They are enthusiastic about helping patients and regret that they cannot help every patient that calls in. They have been amazing throughout this entire process! - Megan Sage***

***I'd like to thank everyone for their efforts to keep everyone safe, including themselves, their coworkers, our patients, and other visitors and OHSU members who work in or visit the RLSB. We've all been presented with a tremendous challenge, and everyone has helped meet and exceed the challenge by implementing new protocols and practicing excellent infection control. I'd also like to thank everyone for their efforts to conserve our PPE, especially the precious N95 respirators. Dr. Replogle piloted the plane, and everyone pitched in to keep it in the air. Thank you, Dr. Replogle! Thank you, bomb squad! Thank you, all! - Karla Kent***





Pictured above: a resident and dental assistant administering care



Pictured above: an EDCC PPE station

***Thank You to the Dental Assistant and the PAS teams. They put in many hours under strange and ever-changing circumstances and did so with great attitudes and big smiles. I don't know what we would have done without them.***- Kelly Whitten

***A special thanks to all of the hygienists! They demonstrate the epitome of teamwork and accept ongoing changes with grace. It is a pleasure working with them.*** - Lisa DiTommaso

***A heartfelt thank you to Central Sterile; for being so willing to do anything and everything that you could to help out and contribute. In between specialized sterile processing work in support of the EDCC, you stepped up in so many different ways to support other areas, including the Neonatal Intensive Care Unit, Public Safety, Food & Nutrition, Logistics Warehouse, SOD Access Checkpoint, and Environmental Services. You really can do it all! A sincere thank you to the SOD's leadership, who made great efforts to find the way and lead us forward. We were able to confidently and successfully move forward by your expertise and constant vigilance to recarve our next steps as things changed daily. A big thank you to everyone who worked on the EDCC team; we came together, worked together, and played an integral part in the EDCC and supporting sterile processing's success. I am grateful for every one of you and your camaraderie. I believe that, together, we can do great things!*** - Mari Hiner

The entire SoD contributed to the accomplishments of the EDCC. Dr. Replogle and Dean Marucha would like to thank everyone who supported the clinic. Here is a list of all the individuals who were part of the EDCC Team (listed alphabetically by role).

Appt Center Agent Anna Sheeran  
Appt Center Agent Annabelle Ocuaman  
Appt Center Agent Elmer Gomez  
Appt Center Agent Jason Frieboes  
Appt Center Agent Jeanne Martin  
Appt Center Agent Jose "Ricky" Aguilar Estrada  
Appt Center Agent Linda Pullen-Parker  
Appt Center Agent Macensie Cain  
Appt Center Agent Meagan Oertel  
Appt Center PAS Coordinator Kandace Kyles  
Assoc. Dean for Finance & Admin. Anne Rudwick  
Appt Center PAS Coordinator Kandace Kyles  
Assoc. Dean for Finance & Admin. Anne Rudwick  
Assoc. Director of Clinical Operations Megan Sage  
Axiom Trainer Billie Speicher  
Axiom Trainer Sarah Cinnamon  
Dean Phillip Marucha

Dental Assistant Ana Katzung  
Dental Assistant Andrea Gregg  
Dental Assistant Andrea Irby  
Dental Assistant Ariel Martinez  
Dental Assistant Debbie Taira  
Dental Assistant Deleecha Savage  
Dental Assistant Dora Kishimoto  
Dental Assistant Gina Bainbridge  
Dental Assistant Hannah Schoenborn  
Dental Assistant Jane Kessel  
Dental Assistant Jennifer Bantugan  
Dental Assistant Jeremy Reed  
Dental Assistant Jessica Hampton  
Dental Assistant Julie Marcotte  
Dental Assistant Justina Chavez  
Dental Assistant Kathy Odell

Dental Assistant Kelsie Sanchez  
Dental Assistant Kimberly Klampe  
Dental Assistant Kirstin Johnson-Brissett  
Dental Assistant Luzviminda Cruz  
Dental Assistant Melody Ly  
Dental Assistant Mitchell Bone  
Dental Assistant Michelle Benavides  
Dental Assistant Nga Ngo  
Dental Assistant Reanna Cummings  
Dental Assistant Rhonda Benoit  
Dental Assistant Shideh Sadlou  
Dental Assistant Sita Smith  
Dental Assistant Susett Cao Aloy  
Dental Assistant True Nguyen  
Dental Assistant Veronica Buguelin Flores  
Dental Informatics Support Devin Bryant  
Dental Informatics Support Trisha Crabb  
ENDO Resident Amir Arad  
ENDO Resident John Wiens  
ENDO Resident Sarah Paje  
ENDO Resident Tony Okoli  
ENDO Resident Wells Brockbank  
ENDO Resident Jason McDaniels  
Faculty Akshay Govind  
Faculty Brian Whitten  
Faculty Bryan Tervo  
Faculty Danielle Wingrove  
Faculty David Carsten  
Faculty Elizabeth Palmer  
Faculty Franci Stavropoulos  
Faculty Howard Freedman  
Faculty J Marshall  
Faculty James Katancik  
Faculty Malin Friess  
Faculty Marat Tselnik  
Faculty Mark Engelstad  
Faculty Michelle Kim  
Faculty Nasser Said-Al-Naief  
Faculty Pamela Hughes  
Faculty Paul Brent  
Faculty Peter Morita  
Faculty Philip Mann  
Faculty Robert Kravitz  
Faculty Robert Steelman  
Faculty Yota Stathopoulou  
Family Dental Practice Manager Cindy Compton  
Floor Rad Tech Karl Pfalzgraff  
GPR Resident Andrew Lane  
GPR Resident Elise Borja  
GPR Resident Jad Mourad  
GPR Resident Kevin Chung  
GPR Resident Krista Lill  
GPR Resident Nadia Razani  
Group Practice Coordinator Rachel Burggraff  
Group Practice Coordinator Shawna Moss  
Head of the EDCC Karan Replogle  
Infection Control OCA Karla Kent  
Infection Control UOR Processing & Atrium Screening Shanna Coughlan  
Manager Brian Stief  
Manager Cynthia Compton  
Manager Lisa DiTommaso  
Manager Mari Hiner  
Materials Management Jason Aldridge  
OCA Certified Healthcare Interpreter Olga Parker  
OMFS Resident Cong Vo  
OMFS Resident Jonathan Jelmini  
OMFS Resident Lauren Hum  
ORTHO Resident Alex Rauchle

ORTHO Resident Byron Chou  
ORTHO Resident Kathy Lin  
ORTHO Resident Madeline Kelley  
ORTHO Resident Puja Patel  
ORTHO Resident Shannon Schober  
ORTHO Resident Tylor Brekke  
ORTHO Resident Vinny Peterson  
PAS Achsa Davis  
PAS Alejandra Cornejo  
PAS Bess Garrison  
PAS Daniela Angeles Rios  
PAS Debra Sakr  
PAS Haidee Alvarez  
PAS Hales Skelton  
PAS Jennifer Galindo  
PAS Jose Antonio Gutierrez Gonzalez  
PAS Kiara Taylor  
PAS Morgan Zimmerman  
PAS Natasha Gregory  
PAS Suyen Garcia  
PAS & Atrium Screening Ariana Jimenez Mendez  
PAS & Atrium Screening Carol Reynolds  
Patient Advocate Zoie Newman  
PEDS Resident Mitchell Loeb  
PEDS Resident Paul Stevens  
PEDS Resident Sarah Lee  
PEDS Resident Sean Mcguire  
PEDS Resident Brian Mcguire  
PEDS Resident Farielle Houran  
PEDS Resident Lola Stanson  
PERIO Resident Angel Bello  
PERIO Resident Annika Van der Werf  
PERIO Resident Arvind Adapalli  
PERIO Resident Christopher Alex Louie  
PERIO Resident Clarence Lee  
PERIO Resident Edith Lin  
PERIO Resident Irene Louie  
PERIO Resident Lillian Nguyen  
Predoc Practice Manager Kelly Whitten  
Professor & Director of Quality Improvement Karla Kent  
Radiology Technician Elena Nagy  
Registered Dental Hygienist Jamie Parker  
Registered Dental Hygienist Kallee Dalton  
Registered Dental Hygienist Laurel Mavuwa  
Registered Dental Hygienist Melanie Cline  
Registered Dental Hygienist Monica Lyster  
Registered Dental Hygienist Nichole Davidson  
Social Work Intern Natalia Michaelson  
Social Work Program Director Rosemarie Hemmings  
Sterile Processing Technician Irina Tkachenko  
Sterile Processing Technician Jazmine Bucasas  
Sterile Processing Technician Jennifer Dickinson  
Sterile Processing Technician John Gomez  
Sterile Processing Technician John Lowe  
Sterile Processing Technician Mark Wende  
Sterile Processing Technician & Atrium Screening Justice Edeen  
Sterile Processing Technician & Atrium Screening Stephan Trojak  
Sterile Processing Technician & Atrium Screening Tamnhi Pham



**THANK YOU,  
EDCC!**

# 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.

## ENGINEERING BONE TISSUE OF UNPRECEDENTED PRECISION



Luiz Bertassoni, D.D.S., Ph.D. leads a multidisciplinary research group working on various aspects of biomaterials and tissue engineering

“We can now engineer bone-like tissue in the lab with the same complexity that nature does,” said biomedical engineer **Luiz Bertassoni**, D.D.S., Ph.D., an assistant professor in the OHSU School of Dentistry and a member of CEDAR, the Cancer Early Detection Advanced Research Center in the OHSU Knight Cancer Institute. “This is the first time anyone has been able to embed cells in minerals, which is what characterizes bone tissue. Now we can address all the questions we couldn’t before about how bone develops or interacts with disease in the context it happens in nature.”

The new discovery replicates human bone tissue with an unprecedented level of precision, from its microscopic crystal structure to its biological activity. Like real bone, the material has a 3D mineral structure populated with bone cells, nerve cells, and endothelial cells that self-organize into functioning blood vessels. It takes 72 hours or less to create the material in a lab.

“We can reproduce the architecture of bone down to a nanometer scale,” Bertassoni said. “Our model goes through the same biophysical process of formation that bone does.”

“NOW WE CAN ADDRESS ALL THE QUESTIONS WE COULDN’T BEFORE ABOUT HOW BONE DEVELOPS OR INTERACTS WITH DISEASE, IN THE CONTEXT IT HAPPENS IN NATURE.”

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

### NEW FORMULA CRACKS IMITATION BONE

BONE IS A UNIQUE ORGAN IN THE BODY, BEING AN ORGANIC AND INORGANIC NANOCOMPOSITE, MAKING IT DIFFICULT TO REPLICATE. IN THIS NEW METHOD, BERTASSONI AND HIS TEAM COMBINE HUMAN STEM CELLS AND COLLAGEN, THEN EXPOSE THE MATERIAL TO A COCKTAIL OF CALCIUM AND PHOSPHATE, ALONG WITH THE PROTEIN OSTEOPONTIN. IN THIS CALCIFIED ENVIRONMENT, STEM CELLS DEVELOP INTO FUNCTIONING BONE CELLS, OSTEOLASTS, AND OSTEOCYTES. WHEN THE OHSU SCIENTISTS ADD NERVE CELLS AND ENDOTHELIAL CELLS TO THE MIXTURE, THEY FORM INTERCONNECTED NETWORKS THAT PERSIST AFTER MINERALIZATION.

This “bone in a dish” offers exciting implications for both basic and clinical research, providing a unique model to study bone function, diseases and regeneration.

“With this model system, you can start asking questions about how bone cells attract different types of cancers, how cancer cells move into bone, how bone takes part in the regulation of marrow function,” Bertassoni said. “It can even be relevant to dissect the mechanisms that are leading to diseases such as leukemia.”

The discovery is the first step in the development of a platform with multiple potential applications. Bertassoni and his team are now working to optimize the material for bone regeneration. They have tested the material as a replacement for injured bone in animal models with positive results that they expect to report soon. OHSU is working with the Food and Drug Administration to get the material cleared for use in humans.



SOURCE: OHSU Knight Cancer Institute's Innovations in Oncology  
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