Alex Cruz, DMD, received honors in research for his thesis project, “Assessing Access to Hospital-Based Dental Care for Adults with Special Needs” completed under the mentorship of Dr. Nalton Ferraro. Alex is also the recipient of the 2021 Grace Milliken Award.

Kasey Ha, DMD, received honors in research for her thesis project, “The Microbiology of Pediatric Odontogenic Infections” completed under the mentorship of Dr. Rosalyn Sulyanto.

Ashiana Jivraj, DMD, MBA, received honors in research in the global and community health track for her thesis project, “Applying Value-Based Health Care in a Dental Setting” completed under the mentorship of Ms. Jane Barrow. Ashiana is also the recipient of the 2021 Harvard Odontological Society Award.

David Kornmehl, DMD, received honors in research for his thesis project, “Assessing Factors That May Influence Performance in a Dental School Operative Course” completed under the mentorship of Dr. Hiroe Ohyama.

Jennifer Lee, DMD, received honors in research in the global and community health track for her thesis project, “Global Health Starter Kit” completed under the mentorship of Dr. Brittany Seymour.

CONGRATULATIONS DMD CLASS OF 2021
YINGZI YANG, PHD, RECEIVES DEPARTMENT OF DEFENSE AWARD

Yingzi Yang, PhD, professor of Developmental Biology and associate dean for Research at HSDM, received an award from the U.S. Department of Defense for, “Piezo1-Mediated Mechanotransduction as a Key Regulator of Bone Health in Adult Mice.”

There are widespread demands for understanding the pathological and therapeutic development for musculoskeletal disorders. This project addresses musculoskeletal health by investigating the key cellular and molecular mechanisms underpinning bone formation and remodeling controlled by Piezo1, a key biological force-sensing channel. Human Piezo1 single nucleotide polymorphisms (SNPs) are recently found to be associated with body height reduction and osteoporosis. Dr. Yang will address the following aims:

1. To determine the role of Piezo1 in adult bone homeostasis.

2. To define the role of [Ca2+]i/NO/cGMP/PKG signaling axis in mediating Piezo1-regulated mechanotransduction in bone cells.

3. To identify the osteocyte-intrinsic roles of Piezo1 in promoting bone formation by regulating LCN formation, maintenance and osteocyte activities.

Knowing the key roles Piezo1 plays in bone health, Dr. Yang’s mechanistic studies in vitro and in vivo will identify potential biological and therapeutic targets to prevent or treat musculoskeletal disorders caused by musculoskeletal overloading or disuse.

Dr. Yang also received a supplemental award for her NIH/NIAMS project, “Molecular Mechanism of Wnt/Planar Cell Polarity Signaling.”

The goal of this project is to evaluate the role of Wnt/planar cell polarity (PCP) signaling in the neurons of the brain in two mouse models of Alzheimer’s Disease (AD). Dr. Yang will examine the expression and activity of PCP in the mouse brain with AD lesions and the role of amyloid precursor protein in Wnt/PCP signaling activation. She will also evaluate alteration of AD phenotypes by the unique Wnt/PCP mutants that she has established to gain critically important insights into pathophysiological mechanisms underlying AD and identify potential targets in Wnt/PCP signaling as an approach for AD treatment.
PUBLICATIONS

DEVELOPMENTAL BIOLOGY


ORAL MEDICINE, INFECTION AND IMMUNITY


Lama Alabdulaaly, BDS, DMSc, oral and maxillofacial pathology, received the Dr. James H. Shaw Award. Dr. Alabdulaaly’s thesis project, “Deletion of the Parathyroid Hormone Receptor in Marrow Adipose Lineage Precursors Prevents Their Negative Regulation of Skeletal Homeostasis” was completed under the mentorship of Dr. Roland Baron and Dr. Francesca Gori.

Diana Wang, DDS, DMSc, oral and maxillofacial pathology, received the Dr. Joseph L. Henry Award. Dr. Wang’s thesis project, “Exploring Early Re-Epithelialization and TET-Mediated 5-Hydroxymethylcytosine Epigenetic Regulation in Oral Mucosal Wound Healing” was completed under the mentorship of Dr. George Murphy.

Hesham Alhazmi, BDS, MS, DMSc, dental public health, received the Lois K. Cohen Award and the Dr. James M. Dunning Award. Dr. Alhazmi’s thesis project, “Socio-Economic Inequalities in Dental Care Utilization Among the U.S. Population: A Study of Trends From 2010 to 2019” was completed under the mentorship of Dr. Christine Riedy.

Kobie Gordon, DDS, MMSc, dental education, certificate, dental public health, received the Community Service Postdoctoral Award. Dr. Gordon completed his thesis project, “Survey on Antibiotic Stewardship Training and Programs in Northeast Dental Schools” under the mentorship of Dr. Erinne Kennedy.

CONGRATULATIONS AGE CLASS OF 2021
ORAL HEALTH POLICY AND EPIDEMIOLOGY


ORAL AND MAXILLOFACIAL SURGERY


RESTORATIVE DENTISTRY AND BIOMATERIALS SCIENCES


MULTI DEPARTMENTAL


ZACHARY PEACOCK, MD, DMD

Dr. Peacock graduated summa cum laude from HSDM in 2004, then received his MD degree and residency training in oral and maxillofacial surgery at the University of California, San Francisco. Following his residency training, he completed a fellowship in pediatric oral and maxillofacial surgery (OMFS) at MGH under the mentorship of Dr. Leonard Kaban. Dr. Peacock joined the OMFS faculty in 2010, and was recently promoted to associate professor. He is also co-director of the Cleft and Craniofacial Center, a collaboration between Shriners Hospitals for Children — Boston and MassGeneral Hospital for Children.

Dr. Peacock specializes in the care of patients with craniomaxillofacial deformities and pathology. He is actively involved in clinical and translational research on distraction osteogenesis and the histologic and genomic analysis of benign jaw tumors. As a result of his work, he receives national and international patient referrals for management of benign maxillofacial lesions. Dr. Peacock has been appointed chair of the American Association of Oral and Maxillofacial Surgeons’ (AAOMS) committee on research. In 2020, he received the William J. Gies Award for research and surgical education from the American Dental Education Association and the AAOMS.

Dr. Peacock developed a technique in collaboration with pediatric neuroradiology at MGH and Boston Children’s Hospital to quantify the amount of synovitis of the temporomandibular joint (TMJ) in children with juvenile idiopathic arthritis. The sensitivity and specificity of this technique has resulted in earlier diagnosis of TMJ involvement and instituted treatment to prevent destruction of the joint and resultant deformity. He also developed a technique for distraction osteogenesis for infants with obstructive sleep apnea helping them avoid, or remove a tracheostomy.

Dr. Peacock has worked tirelessly to provide excellent clinical care that is supported by research directed at improving the outcomes and morbidity of surgical treatment. He is passionate about teaching and mentoring fellows, residents, and students with an emphasis on problem-based investigation. Dr. Peacock’s ultimate goal is to improve the quality of life of his patients with craniomaxillofacial deformities.
CHIA-YU JENNIFER CHEN, DDS, DMSc, DIRECTOR OF PREDOCTORAL PERIODONTOLOGY

The Department of Oral Medicine, Infection and Immunity is pleased to announce that Dr. Chia-Yu Jennifer Chen has been appointed director of predoctoral periodontology. Dr. Chen seamlessly assumed interim directorship in October 2020 with extraordinary success. Dr. Chen is a 2019 graduate of HSDM’s advanced graduate education program in periodontology, earning a DMSc along with her specialty certificate. Following graduation, she joined OMII as a research fellow, then as instructor in July 2020. Dr. Chen has a busy research portfolio and mentors numerous DMD, MMSc and DMSc students.

FERNANDO GUASTALDI, DDS, MSc, PhD, RECEIVES ELEANOR AND MILES SHORE FELLOWSHIP

Fernando Guastaldi, DDS, MSc, PhD, instructor in Oral and Maxillofacial Surgery (OMFS) and director of the Skeletal Biology Research Center at OMFS, was awarded the Eleanor and Miles Shore Faculty Fellowship. Dr. Guastaldi’s current research focus is “Combinatorial Approach to Cartilage Regeneration in the Temporomandibular Joint.” He is working with Dr. Mark Randolph, assistant professor of surgery and director of the MGH/HMS Plastic Surgery Research Laboratory and Dr. Robert W. Redmond, associate professor of Dermatology and associate chemist in the Wellman Center for Photomedicine at MGH.
SAVE THE DATE:
HSDM SCIENCE SPEAKER SERIES

June 10, 2021
12-1 pm – via Zoom

“Wound Healing: Fibrosis, Fibroblasts, and Regeneration”

Michael Longaker, MD, MBA
Professor and Vice Chair of Plastic and Reconstructive Surgery, Co-Director, Institute for Stem Cell Biology and Regenerative Medicine, Stanford University

https://harvard.zoom.us/j/96640107150?pwd=Qm10N3dPT3FBA2ozMy9nK2JZVVRjdz09
Password SCISPKML1

A PUBLICATION OF THE OFFICE OF RESEARCH

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