Katherine W.L. Vig, BDS, MS, DOrth, senior lecturer on Developmental Biology at Harvard School of Dental Medicine received the American Association of Orthodontics’ (AAO) 2022 Lifetime Achievement Award in Orthodontic Research. She will present “The Role of Mentors in our Lifetime Achievements” at the May 22, 2022 AAO meeting. Dr. Vig was also honored by the AAO at the 2021 Educators’ Symposium.

Dr. Vig has served as a part-time senior lecturer in the Department of Developmental Biology at HSDM since 2019. She is the co-editor of *Orthodontics: Current Principles & Techniques* now in its 7th edition, and has published extensively in orthodontic literature. Dr. Vig served as president of the American Cleft Palate-Craniofacial Association and president of the IADR Craniofacial Biology Group. Dr. Sercan Akyalcin member of the faculty in the Department of Developmental Biology and program director for Advanced Graduate Education in Orthodontics stated, “Dr. Vig has been a true icon in our profession and has contributed immensely to all of her affiliated institutions throughout her career. Her dedication to orthodontics has heightened the specialty to new levels and for that, she is deserving of this award. We continue to be inspired by her legacy and congratulate her on this significant accomplishment.”

Jack Harris, DMD22, won first-place in the 2022 SCADA Clinical Science and Public Health Research Category at the American Association for Dental, Oral and Craniofacial Research (AADOCR) annual meeting. His research “Females Demonstrate Worse Overall and Disease-Specific Survival in HPV-Negative Oropharyngeal Squamous Cell Carcinoma” was completed under the mentorship of Zachary Peacock, DMD, MD, associate professor of Oral and Maxillofacial Surgery. Dentsply Sirona and the AADOCR joined forces to co-sponsor SCADA, which empowers the next generation of dental leaders by showcasing students’ research and recognizing their passion for discovery and innovation.
PUBLICATIONS

DEVELOPMENTAL BIOLOGY


ORAL MEDICINE, INFECTION AND IMMUNITY


Menon R, Tavares T, Woo SB. Red and white lesion of the tongue in a patient with cutaneous findings. *Journal of the American Dental Association* 2022;S0002-8177(21)00659-0.


**ORAL AND MAXILLOFACIAL SURGERY**


This past March, DMD/PhD candidate, Elizabeth Perry, successfully defended her dissertation for the Biological Sciences in Dental Medicine program. Her thesis, “Tetracyclines Promote Survival and Fitness in Mitochondrial Disease Models” was completed under the mentorship of Pere Puigserver, PhD, professor of Cell Biology at Harvard Medical School and Department of Cancer Biology at Dana-Farber Cancer Institute. Dr. Yingzi Yang, professor of Developmental Biology and associate dean for research stated, “Elizabeth’s remarkable research achievement is a showcase of our DMD students’ research capability and a great example of what the Harvard research environment can provide for our DMD/PhD students.”

This past April, PhD candidate, Dr. Jin Hao, successfully defended his dissertation for the Biological Sciences in Dental Medicine program. His thesis “TBK1 deficiency Leads to TDP-43 Pathology Driven by Endo-Lysosomal Dysfunction in Human-Induced Motor Neurons” was completed under the mentorship of Kevin Eggan, PhD and Zhixun Dou, PhD. Dr. Eggan is vice president and head of Research and Early Development at BioMarin (previously professor in the Department of Stem Cell and Regenerative Biology at Harvard University) and Zhixun Dou, PhD, assistant professor of Medicine, Massachusetts General Hospital.

Takahiko Shiba, DDS, PhD, joined the Giannobile Lab as a visiting assistant professor in the Department of Oral Medicine, Infection and Immunity. He will be at HSDM for two years. Dr. Shiba received his DDS degree from Showa University in 2009. He then earned his PhD degree in 2017 from the Tokyo Medical and Dental University. Since 2020, he been assistant professor in the Department of Periodontology at Tokyo Medical and Dental University. During his time at HSDM, he will work on “Abaloparatide to Treat Alveolar Bone Loss for Dental Implant Reconstruction.” Dr. Shiba is supported by a research fellowship from the Sunstar Corporation.

Dr. Baroi received his masters degree in pharmaceutics from the University of Dhaka in Bangladesh. He was lecturer in the Department of Pharmacy at Ranada Prasad Shaha University, Bangladesh before moving to Ohio. Dr. Baroi completed his PhD degree in molecular medicine from the University of Toledo College of Medicine and Life Sciences. His thesis work with Dr. Beata Lecka-Czernik, focused on discovering the role of nuclear receptor PPARG in osteocytes and how it plays a role in regulation of bone homeostasis and osteocyte bioenergetics. In the Baron-Gori Lab, Dr. Baroi is working on determining the role of Sfrp4 in periosteal stem cells and how they contribute to bone development, homeostasis, and fracture healing.
IMPORTANT DATES

HSDM SCIENCE TALK
May 12, 2022 – 12:00 to 1:00 pm – REB Auditorium

Yuji Mishina PhD
Professor of Dentistry, Department of Biologic and Materials Sciences & Prosthodontics, University of Michigan

“New Insight of BMP Function for Spatio-Temporal Coupling of Bone Remodeling Through Osteoclast Activities”

HSDM SCIENCE TALK
June 9, 2022 – 12:00 to 1:00 pm – REB Auditorium

Wanida Ono, DDS, DMSc, PhD
Assistant Professor of Dentistry, Department of Orthodontics & Pediatric Dentistry, University of Texas Health Science Center

“Revisiting the Dental Follicle: Tooth Root/Periodontium Formation and Tooth Eruption”

Please contact Dawn DeCosta in the HSDM Office of Research if you are interested in presenting a poster to the HSDM and Forsyth community.

FACULTY POSTER DAY

HSDM & FORSYTH FACULTY POSTER DAY
SEPTEMBER 6, 2022
4–6 PM
HMS COURTYARD CAFE

Enjoy some food and drinks while meeting faculty, learning about their research, and exploring project opportunities. This is a mandatory event for all DMD and AGE students. Details to follow...
Dr. David Kim, associate professor of Oral Medicine, Infection and Immunity and program director of the Advanced Graduate Education Program in Periodontology, received a 2022 Osseointegration Foundation Basic Science Research Grant. This project “Highly Multiplexed Spatial Mapping of Oral Microbial Communities in Peri-Implant Health and Disease” will be conducted in collaboration with co-investigator, Dr. Iwijn De Vlaminck, associate professor, Benjamin Grodner, PhD candidate in the Meinig School of Biomedical Engineering at Cornell University, and Dr. David Wu, DMSc23 Periodontology. The goal of the proposed study is to understand the composition and spatial organization of oral microbial communities in peri-implant health and peri-implant disease at single cell resolution.

Dr. Dianne Luu, MMSc22 prosthodontics, received first place in the graduate student research competition at the American Equilibration Society 2022 Scientific Meeting. Her project “Comparison of Accuracy in Digital and Conventional Cross-Mounting” was completed under the mentorship of Dr. Sang Lee, assistant professor of Restorative Dentistry and Biomaterials Sciences and program director of the Advanced Graduate Education Program in Prosthodontics.

Dr. Anvita Maharishi, MMSc22 prosthodontics, received third place at the graduate student research competition at the American Prosthodontic Society 93rd annual meeting. Her project “Retrospective Clinical Study for a Comprehensive Assessment of Soft Tissue Esthetics” was completed under the mentorship of Dr. Shigemi Nagai, associate professor of Oral Medicine, Infection and Immunity.

Dr. Hend Alqaderi, instructor in Oral Health Policy and Epidemiology and interim program director of the Advanced Graduate Education Program in Dental Public Health, received an award from L’Oréal-UNESCO for Women in Science for her research “Oral Biomarkers in SARS-CoV2.” The ceremony took place in Dubai this past February and Dr. Alqaderi received the award from the CEO of the L’Oréal Foundation, Ms. Alexandra Palt.

Dr. Paula Furlan Bavía Barbisan, DMD22, received an award for the HEAPS competition at the American Association of Cosmetic Dentistry for “Optimizing Esthetics and Function of Anterior Maxillary Teeth using Lithium Disilicate Ceramic Restorations – A Case Report.” The clinical case was conducted at the HSDM teaching practice under supervision of Dr. Russell Taylor, lecturer on Restorative Dentistry and Biomaterials Sciences at HSDM.
Dr. Jason Lee, instructor in Restorative Dentistry and Biomaterials Sciences and Dr. Sang Lee, assistant professor of Restorative Dentistry and Biomaterials Sciences and program director of the Advanced Graduate Education Program in Prosthodontics, received an 2022 Osseointegration Foundation Restorative Research Grant for their project “Quantitative Analysis of Occlusal and Interproximal Contacts in Posterior Single-Implant Supported Restorations.” They are collaborating with Dr. Philip Millstein, lecturer on Restorative Dentistry and Biomaterials Sciences, and AGE prosthodontics students Drs. Huilin Cao and Yujun Wang.

Dr. Yuanming Xu, PGY3, MMSc candidate in oral medicine, received the 2022 Lester Burket Memorial Award from the American Academy of Oral Medicine (AAOM). Dr. Xu’s research “Characteristics of Oral Immune-Related Adverse Events (IrAEs) of Immune Checkpoint Inhibitors and Their Correlation with Other Systemic IrAEs” was completed under the mentorship of Dr. Stephen Sonis, senior surgeon at Brigham and Women’s Hospital and Dana Farber Cancer Institute, and Clinical Professor in the Department of Oral Medicine, Infection and Immunity; and, Dr. Alessandro Villa, currently, the chief of the Oral Medicine Clinic at the University of California at San Francisco and program director for the Oral Medicine Residency program. Dr. Xu will be giving the oral presentation at the AAOM meeting this May and his abstract will be published in the Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology journal.

"New Insight of BMP Function for Spatio-Temporal Coupling of Bone Remodeling through Osteoclast Activities"

YUJI MISHINA, PHD
Professor of Dentistry
Department of Biologic and Materials Sciences & Prosthodontics
Michigan University
Francesca Gori, PhD, associate professor of Oral Medicine, Infection and Immunity, received funding for “Biology of Adult Mouse Incisors: Role of Sfrp4 in Tooth Formation, Development and Renewal.” Dr. Gori is collaborating with Felicitas Bidlack, PhD, assistant member of staff at the Forsyth Institute and assistant professor of Developmental Biology at HSDM.

Lorenzo Tavelli, DDS, MS, faculty member in Oral Medicine, Infection and Immunity, received funding for “B-Mode and Power Doppler Ultrasonography for Periodontal and Peri-Implant Health Diagnosis, Phenotype Characterization and Wound Healing Assessment.” Dr. Tavelli is collaborating with German Gallucci, DMD, PhD, chair and Raymond J. and Elva Pomfret Nagle associate professor of Restorative Dentistry and Biomaterials Sciences.

Malcolm Whitman, PhD, professor of Developmental Biology, received funding for “Activating a Novel Amino Acid-Sensing Pathway to Suppress Pathological Inflammation in the Oral Cavity.” Dr. Whitman is collaborating with Tracy Keller, PhD, instructor in Developmental Biology and Corneliu Sima, DMD, MSc, DSc, assistant professor of Oral Medicine, Infection and Immunity.

Hawazin Elani, PhD, (not in the group photo), assistant professor of Oral Health Policy and Epidemiology, received funding for “Machine Learning to Reduce Disparities in Tooth Loss: A Multinational Study.” Dr. Elani is collaborating with Ichiro Kawachi, PhD, MB, ChB, John L. Loeb and Frances Lehman Loeb professor of Social Epidemiology at the Harvard T.H. Chan School of Public Health.

Jennifer Gibbs, DDS, PhD, (not in the group photo), assistant professor of Restorative Dentistry and Biomaterials Sciences, and Program Director of AGE Endodontics, received funding for “Neuronal Mechanisms of Bacterial Mediated Pain and Pathology in Pulpitis.” Dr. Gibbs is collaborating with Isaac Chiu, PhD, associate professor of Immunology at Harvard Medical School.
Yasmin Alayyoubi, DMSc22 Oral Biology
Teeth and Dental Development as a Peripheral Marker of Early Life Stress Exposure in Mice (MENTOR DR. FELICITAS BIDLACK)

Shaima Bahammam, DMSc22 Periodontology
Resolving Macrophages Regulate Adiposity and Energy Expenditure on High-Fat Diet (MENTOR DR. CORNELIU SIMA)

Ozge Erdogan, DMSc22 Oral Biology
Neuronal-Immune Changes During Pulpitis (MENTORS DR. JENNIFER GIBBS AND DR. ISAAC CHIU)

Tejasvita Chandel, MMSc22 Dental Public Health
Training and Educational Programs that Support Geriatric Dental Care in Rural Settings (MENTORS DR. STEFFANY CHAMUT AND DR. CHRISTINE RIEDY)

Chris Chung, MMSc22 Orthodontics
Morphological and Molecular Changes in Temporomandibular Joint of Acquired Lubricin Deficient Mice (MENTOR DR. MATT WARMAN)

Anvita Maharishi, MMSc22 Prosthodontics
Retrospective Clinical Study for a Comprehensive Assessment of Soft Tissue Esthetics (MENTOR DR. SHIGEMI NAGAI)

Emily Roudnitsky, DMD22
Assessing Knowledge and Promoting Awareness of Vascular Anomalies Among Oral and Maxillofacial Surgeons (MENTOR DR. SALIM AFSHAR)

Kristen Urban, DMD22
Classification of Straumann Implants Using a Convolutional Neural Network (MENTOR DR. THOMAS NGUYEN)

Marisa Werger, DMD22
Toothpaste Guidance for Healthy and Special Needs Children (MENTOR DR. ROSAYLN SUFYANTO)
PUBLICATIONS

ORAL HEALTH POLICY AND EPIDEMIOLOGY


Beck N, Choi S, Barrow J. The need for high-quality economic evaluations in dentistry. *International Dental Journal* 2022; Mar 4.


Lambert R, Discepolo K, Elani H. Chilling effects on immigrants’ health insurance coverage after the 2016 presidential election. *Journal of Immigrant and Minority Health* 2022; Mar 22.


RESTORATIVE DENTISTRY AND BIOMATERIALS SCIENCES


A PUBLICATION OF THE OFFICE OF RESEARCH

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