Older adults, 65 years and older, are the most rapidly growing demographic in the United States with 10,000 adults reaching this milestone within a single day. Despite older adults living longer, many have not experienced good health - having two or more chronic health conditions. Inequalities in oral health and the complex relationship between oral health and general health especially among those with multiple chronic conditions requires a comprehensive, interdisciplinary, and patient-centered approach. While the number of older adults in the U.S. is increasing, the number of health professionals who specialize in their care is decreasing. All oral health providers who care for older adults must not only be open to coordinating with the patient, the patient’s family, caregivers, and other professionals, but must have specific training regarding their care.

The overall goal of this program is to transform the education and training of Harvard School of Dental Medicine’s (HSDM) predoctoral dental students by incorporating age-friendly, interprofessional, and social determinants of health principles into their curriculum to better prepare them to care for underserved and vulnerable older adults. We propose to address the gap in dental geriatric education by enhancing the predoctoral dental didactic and emergent clinical experiences as well as creating a geriatric oral health track that will enable predoctoral dental students to build skills and competencies in several areas including but not limited to: (1) 4 M’s Framework (what Matters most, Medication, Mentation, Mobility), (2) interprofessional education and collaborative practice (IPE/IPCP) including integration of oral health and primary care, (3) cultural competence and health literacy and, (4) social determinants of health.

The specific goals are to: (1) Improve and expand predoctoral dental education in the understanding and care delivery of underserved and vulnerable older adults by planning, developing, and implementing didactic and emergent clinical experiences in an enhanced dental curriculum and creating an innovative community-based geriatric oral health track that delivers active learning, didactic strategies, and best practices in older adult oral healthcare; (2) Train predoctoral dental students in innovative comprehensive and patient-centered models of care for underserved and vulnerable older adults including interprofessional collaborative practice, teledentistry and Age-Friendly Health Systems; (3) Create a pipeline to track a diverse pool of predoctoral dental students into postdoctoral general dentistry and dental public health programs with a rural focus as well as geriatric fellowship programs to ensure a skilled workforce to meet Americans’ aging oral health needs; and (4) Evaluation, operational and administrative support to achieve sustainability.
LORENZO TAVELLI, DDS, MS, RECEIVES FUNDING FROM THE OSSEOINTEGRATION FOUNDATION

Lorenzo Tavelli, DDS, MS, assistant professor of Oral Medicine, Infection and Immunity, received funding from the Osseointegration Foundation.

Dr. Tavelli’s project “Prediposing and Protective Factors for Implant Health Complications and Esthetic Success: A Clinical and Ultrasonographic Study,” was selected as the 2022 Translational and Clinical Science Research Grant winner. The objective of the study is to combine the use of novel Power Doppler Ultrasonography to clinical and radiographic parameters for characterizing dental implants and assessing parameters associated with esthetic outcomes, peri-implant health, and complications. Dr. Tavelli is working with Dr. German Gallucci, Raymond J. and Elva Pomfret Nagle associate professor and chair of Restorative Dentistry and Biomaterials Sciences.

Jin Hao, MS, DMD, PhD, successfully defended his PhD dissertation “TBK1 deficiency Leads to TDP-43 Pathology Driven by Endo-Lysosomal Dysfunction in Human-Induced Motor Neurons” for the Biological Sciences in Dental Medicine PhD Program.

Dr. Hao is photographed above in Harvard’s Memorial Hall with Dr. Yingzi Yang, professor of Developmental Biology and associate dean for research at HSDM.
PETER POLVERINI, DDS, DMSc, SELECTED AS THE NEXT GOLDHABER AWARD RECIPIENT

Peter Polverini, DDS, DMSc, Jonathan Taft Distinguished University Professor of Dentistry, Professor of Dentistry, Department of Oral Medicine/Pathology and Oncology, School of Dentistry and Professor of Pathology at the University of Michigan was selected as the next Goldhaber Award recipient.

Dr. Polverini has a distinguished scientific career in the field of vascular biology, has served multiple important leadership roles. Dr. Polverini is an HSDM alumnus, fellow of the American Association for the Advancement of Sciences and was elected to the Institute of Medicine of the National Academies in 2010, and president of AADR in 2013. We look forward to celebrating Dr. Polverini on November 14, 2022.

GOLDHABER AWARD RECIPIENTS 1990-2022

1990  Eiko Sairenji
1991  Joseph Henry
1992  Jens Jørgen Pindborg
1994  Harold Loe
1995  Ronald Gibbons
1996  Jeanne Sinkord
1997  Robert Gorlin
1998  Robert Ledley
1999  Harold Slavkin
2000  Gideon Rodan
2001  John Greene
2002  Marjorie Jeffcoat
2003  Charles Bertolami
2004  Sigmund Socransky
2005  Walter Cohen
2006  George Zarb
2007  Robert Genco
2008  Lawrence Tabak
2009  Per-Ingvar Brånemark
2010  Irma Thesleff
2011  Martha Somerman
2012  John Greenspan
2013  Ray Williams
2015  Teruko Takano Yamamoto
2016  Laurie McAuley
2017  Anne Marie Kuijpers-Jagtman
2018  Paul Sharpe
2021  Ichiro Nishimura
2022  Peter Polverini

No Goldhaber Award recipient was chosen in 1993, 2014, 2019, 2020.
Dr. Sung Eun Choi, instructor in the Department of Oral Health Policy and Epidemiology, received the 2022 Eleanor and Miles Shore Faculty Development Award in honor of Aina M. Auskaps, DMD.

The Eleanor and Miles Shore Faculty Development Awards Program (Shore Program) strives to support the Faculty of Medicine at the level of instructor and assistant professor by administering a range of award opportunities to support academic activities for vulnerable faculty balancing early careers with significant personal responsibilities. For her award, Dr. Choi will focus on “Predicting Frequent Emergency Department Visits for Dental-Related Conditions.” Reliance on the emergency department (ED) for receiving dental care continues to rise and health care reformers and policy makers have turned to ED utilization as a potential source for cost savings. The objective of this project is to identify patients at high-risk of frequent ED visits for dental-related conditions using different machine-learning approaches. Dr. Choi stated, “this faculty development award will allow me to conduct a research project that aims to reduce oral health disparities in the US. I hope the results of this study will inform policy makers to better target care management and policy interventions that will address unmet care and social needs while reducing ED overutilization.”

Dr. Choi joined HSDM from Stanford University, where she received a PhD in management science and engineering. She also earned her masters of science in biostatistics from Harvard University. Dr. Choi’s research interests lie in using mathematical models to assess the health and economic outcomes of various health policy and healthcare decisions under uncertainty. Her methodological interests include integrating data science and operations research methods to inform health decision-making. She is also funded by a K99 award from the NIH/National Institute on Minority Health and Health Disparities for “Reducing Oral Health Disparities in Children Using Predictive Analytics and Mathematical Modeling.”

Dr. Auskaps was the first woman to graduate from the Harvard School of Dental Medicine in 1955, having already earned a medical degree (specializing in dentistry) in her native Latvia in 1944, as well as a dental degree completed in Germany in 1945. She spoke five languages fluently including Russian which she learned from her mother. After surviving terrible hardships during World War II, she and her mother were able to emigrate to the United States. She originally worked as a medical translator at Yale University and soon became a research fellow and eventually faculty member. In 1955, she completed her Harvard dental degree and joined the faculty of the Department of Biochemistry and Nutrition. Later in her career, Dr. Auskaps began a private dental practice out of her home in Jamaica Plain, Massachusetts which lasted 50 years.
PUBLICATIONS

DEVELOPMENTAL BIOLOGY


ORAL MEDICINE, INFECTION AND IMMUNITY


ORAL AND MAXILLOFACIAL SURGERY


RESTORATIVE DENTISTRY AND BIOMATERIALS SCIENCES


MULTI DEPARTMENTAL


AGE STUDENT AWARD

Joud Omari, DDS, DMSc’24 advanced graduate student in Oral and Maxillofacial Pathology, was selected for the Waldron Award for best scientific poster at the American Academy of Oral and Maxillofacial Pathology annual meeting. Dr. Omari was selected for her project, “Erdheim-Chester Disease: A Case Report” completed under the mentorship of Dr. Sook-Bin Woo and Dr. Reshma Menon.

RESEARCH PERSONNEL

Guoyan Liang, MD, is a visiting postdoctoral research fellow in the Department of Developmental Biology in the Yang Lab. Dr. Liang is an attending surgeon in the Spine Department of the Guangdong Provincial People’s Hospital in China. He received his medical degree in 2014 from Sun Yat-sen University where he was chief resident. In the Yang Lab, Dr. Liang will work on understanding the cellular mechanism and signaling pathways underlying injury repair of intervertebral disc.

Chance Bowman is a summer intern in the Yang Lab at the Department of Developmental Biology. Mr. Bowman is an undergraduate student at Dartmouth College concentrating on biological chemistry with an anticipated graduation date of 2023. Mr. Bowman is working with Dr. Qian Cong, postdoctoral research fellow in the Yang Lab studying the alteration of normal cell-cell communication in causing heterotopic ossification.
DMD HONORS IN RESEARCH

Nicole Beck, DMD, received honors in research for her project “Physician Knowledge and Attitudes Towards Screening and Referral for Obstructive Sleep Apnea: A Mixed Methods Study in a Tertiary Care Hospital” with mentor, Dr. Salim Afshar.

Praveen Kumar Guntaka, DMD, received honors in research for his project “The Landscape of International Oral and Maxillofacial Surgery Collaborations from 1996-2020: A Scoping Review of Published Literature” with mentor, Dr. Salim Afshar.

Jack Harris, DMD, received honors in research for his project “Early Weight Gain in Infants with Robin Sequence” with mentor, Dr. Cory Resnick.

Camile Herzog, DMD, received honors in research for her project “Tooth Pain Adjacent to an Extraction Site as a Novel Risk Factor for Alveolar Osteitis: A Retrospective Analysis” with mentor, Dr. Elsbeth Kalenderian.

Elizabeth Perry, DMD, PhD, received honors in research for her project “Tetracyclines Promote Survival and Fitness in Mitochondrial Disease Models” with mentor, Dr. Pere Puigserver.

Natalie Wen, DMD, received honors in research for her project “Incidence of Oral Adverse Events in 4683 Patients Receiving Immune Checkpoint Inhibitor Therapy at Massachusetts General Hospital, Brigham and Women’s Hospital, and Dana-Farber Cancer Institute” with mentors, Dr. Stephen Sonis and Dr. Alessandro Villa.

EDITOR’S MESSAGE

In 2001, R. Bruce Donoff, DMD, MD, Walter C. Guralnick Distinguished Professor of Oral and Maxillofacial Surgery and former HSDM Dean, and Bjorn R. Olsen, MD, PhD, professor of Developmental Biology and former HSDM Research Dean, conceived the idea to establish the Research & Education Building and Office of Research at HSDM. At that time, I joined HSDM from the Brigham and Women’s Hospital (BWH) and have been working in the Office of Research ever since. Prior to BWH, I spend time at the Forsyth Institute where I met and worked with Dr. Olsen and many Forsyth colleagues.

During my tenure, I have had the privilege of publishing 150 Office of Research Bulletins; participating in 3 CODA accreditation visits; organizing 20 Student Research Days and Dr. Donald B. Giddon Lectures; and, witnessing more than 950 DMD and AGE students graduate. Most importantly, I have developed extensive relationships with my peers.

It is with mixed emotions that I announce this will be my last Office of Research Bulletin as I bid farewell to HSDM and migrate next door to the Harvard T.H. Chan School of Public Health. Thank you to my brilliant colleagues who have enriched the past 20 years of my life and I hope to see you around campus. In closing, I wish Dr. William Giannobile, dean of HSDM and Dr. Yingzi Yang, associate dean for research, and the entire HSDM community great success in the future.

Respectfully yours,

Dawn M. DeCosta
Editor, Design & Layout, HSDM Research Bulletin; Director of Research Operations, Office of Research