Brittany Seymour and Jane Barrow Receive Awards

Brittany Seymour, DMD, MPH, assistant professor of oral health policy and epidemiology, has received funding from the Consortium of Universities for Global Health, Dr. Thomas Hall Global Health Education Grant, and the International College of Dentists U.S.A. Section Foundation. These grants will support her project “Competency Based Best Practices in Global Health for Dental Education: The Global Health Starter Kit.”

Jane Barrow, associate dean in the Office of Global and Community Health, is partnering with Ho Chi Minh City Medicine and Pharmacy University on a research project entitled, “Vietnam Health Advancement Initiative: Competency-based Dental Education.” The HSDM faculty team is led by principal investigator, Dr. Brittany Seymour who will work directly with Ho Chi Minh City Medicine and Pharmacy University faculty on their dental curriculum reform in order to create, implement, and assess a new competency-based curriculum.

Mani Alikhani and Michelle Y. Chou Publish AJODO “Article of the Month”

Mani Alikhani, DDS, MS, PhD, and Michelle Y. Chou, DDS, MPH, DMSc, faculty in the Advanced Graduate Education Orthodontics program in the Department of Developmental Niology, published, “Age-Dependent Biologic Response to Orthodontic Forces” in the American Journal of Orthodontics and Dentofacial Orthopedics (AJODO). The basis of this work was Dr. Chou’s HSDM DMSc research thesis, and was selected as the “Article of the Month” by the editorial board, and highlighted on the AJODO website with a video they invited Alikhani and Chou to produce.

This research showed that age is a significant variable contributing to the biologic response to orthodontic tooth movement. Adults exhibited a significantly higher level of cytokine and osteoclasts activity but, counterintuitively, had a significantly slower rate of tooth movement. The publication and video may be found at https://www.ajodo.org.

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HSDM STUDENT RESEARCH AWARDS

Zahra Aldawood, DMSc Oral Biology 2018
Dr. Aldawood received The James H. Shaw Award in part for her research, “Harnessing Prx1-expressing cells for regeneration of calvarial bone defects” completed under the mentorship of Dr. Giuseppe Intini.

Martin Berger, Pediatric Resident 2018
Dr. Berger received The James H. Shaw Award and the NuSmile Graduate Student Award in part for his research project, “The microbiological and mechanical effects of caries arrest by silver diamine fluoride” completed under the mentorship of Dr. Rosalyn Sulyanto.

Benjamin Canary, MMSc Orthodontics 2018
Dr. Canary received The Joseph L. Henry Award in part for his research, “Heritability of the airway: Using twin study data to determine heritability estimates of airway dimensions” completed under the mentorship of Dr. Mohamed Masoud.

Christina Cho, DMD Class of 2019
Christina Cho received the 2018 Ralph Phillips Student Research Award for her project, “Comparative evaluation of composite resin restorations fabricated from CAD/3D printing and CAD/CAM technologies” completed under the mentorship of Dr. Hiroe Ohyama.

Sepehr Hashemi, DMD 2018
Dr. Hashemi received Honors in Research for his project, “Could the biological robustness of low level laser therapy impact its use in the management of mucositis in head and neck cancer patients?” completed under the mentorship of Dr. Stephen Sonis.

Mohammad Helmi, DMSc 2018
Dr. Mohammad Helmi received the James Dunning Award in part for his research project, “Community water fluoridation online: An analysis of the digital media ecosystem.”

Heather Hong, MMSc Peridontology 2018
Dr. Hong received The American Academy of Implant Dentistry Post-Doctoral Dental Student Award in part for her research, “Socket preservation procedures revisited: A randomized controlled trial to evaluate dimensional changes with two different surgical protocols” completed under the mentorship of Dr. Eli Machtei.

Sara Rosenberg, DMD 2018
Dr. Rosenberg received the HEAPS Award from the American Academy of Cosmetic Dentistry for her project, “A comprehensive approach for color matching in the esthetic zone” completed under the mentorship of Dr. Shigemi Nagai.

Troy van der Groen, DMD 2018
Dr. van der Groen received Honors in Research for his project, “Minor salivary gland biopsy— an important contributor to the diagnosis of Sjögren’s syndrome” completed under the mentorship of Dr. Meredith August.
Yoshiki Ishida Joins the Nagai/Kim Lab

Yoshiki Ishida, DDS, PhD, joined the Nagai/Kim Lab in April as a Visiting Assistant Professor in the Department of Oral Medicine, Infection and Immunity and will stay through March 2020. Ishida is Assistant Professor in the Department of Dental Materials Science at the School of Life Dentistry at Tokyo, Nippon Dental University, Tokyo, Japan where he also received his PhD in dentistry. His doctoral dissertation was entitled, “Dimensional Accuracy of Dental Casting Patterns Created by 3D Printers.” This work was published in the Journal of Dental Materials 2016; 35(2): 250-256. In the Nagai/Kim Lab, Ishida will research an algorithm of moving teeth using magnetic force and near-infrared light caries detection system.

Gili Naveh and Corneliu Sima Receive NIDCR R00 Research Awards

Gili Naveh, DMD, PhD, assistant professor of Oral Medicine, Infection and Immunity, received an R00 from NIDCR entitled, “Tooth Movement derived by PDL Cellular Manipulations.”

Naveh hypothesizes that intentional modifications in the periodontal ligament structure will trigger changes in tooth movement. She will investigate how loss of function or gain of non-physiological function affects the non-uniformity of the collagen networks in the periodontal ligament and their correlation to the stiffness levels. The final result of this project will enable controlling tooth movement through structural modification of the periodontal ligament. This novel approach will generate tooth movement with only minimal, or no external forces, and thus dramatically transform the orthodontic discipline as well as benefit other medical disciplines.

Corneliu Sima, DMD, MSc, DSc, assistant professor of Oral Medicine, Infection and Immunity, received an R00 from NIDCR entitled, “Regulation of Inflammation in T2D-Associated Periodontitis.”

Sima hypothesizes that resolvin E1 through its receptor ERV1 can modulate circulating monocyte precursors of the macrophage to actively resolve un-regulated inflammation associated with type 2 diabetes mellitus and chronic periodontitis. The project will address specific questions on timing of patrolling monocyte recruitment and resolving mechanism in gingival tissues upon inflammatory stimulation, the impact of ERV1-RvE1 activation on gingival recruitment and activation of resolving macrophage, and the implications of monocyte/macrophage ERV1-RvE1 axis in mitochondrial respiratory function in obese adipose tissue and reverse cholesterol transport.

Contributors to this study include investigators from the Consortium for Translational Orthodontic Research (CTOR), which is a nucleus for integration of basic science, clinical science, and industrial resources in the field of orthodontics, and a driving force in the dissemination of findings to the community and the advancement of the specialty. CTOR offers an open environment within which basic scientists and clinicians can interact, exchange ideas, select and pursue research in specific areas of craniofacial biology and orthodontics. “Compared to other medical specialties, the orthodontic specialty suffers from a slow application of research findings into clinical therapies. We created CTOR with the objective of bridging the large gap between the science and the clinical practice. We want to elevate Orthodontics from an art to a science, and move our specialty into an evidence based practice built on solid biological principles.” — Mani Alikhani, DDS, MS, PhD

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