Yingzi Yang, PhD, professor of Developmental Biology and associate dean for translational research, received funding from the Orphan Disease Center’s Million Dollar Bike Ride pilot grant program for “Mechanistic and Therapeutic Studies of Fibrous Dysplasia Craniofacial Defects.” Emily Moore, PhD, a postdoctoral fellow in the Yang Lab, is also an investigator on this project.

They will focus on fibrous dysplasia (FD), a rare skeletal disorder in which bone-forming cells fail to mature and produce too much fibrous, or connective tissue. They have successfully modeled FD with the novel conditional “knock-in” mouse line they created. Unpublished preliminary results show that Yap protein, which can cause various cancers when increased in expression, was upregulated by Gcr20H expression in cranial bone development. Genetic upregulation of Yap activities also inhibited cranial bone formation.

For this study, they will determine Yap activity in the cranial and maxillary bone and test whether inhibiting Yap activities with or without Wnt inhibition in the FD mutant may offer a novel therapeutic opportunity to reduce fibrotic overgrowth and promote bone ossification in the cranial and maxillary bones.

Brittany Seymour, DDS, MPH, assistant professor of Oral Health Policy and Epidemiology, received funding from the ADEAGies Foundation, which is the philanthropic arm of the American Dental Education Association. Seymour is the principal investigator for “The Global Health Learning Helix for Dental Educators.” Seymour has also taken on a new role at HSDM directing the DMD global health curriculum.

Seymour is photographed at Las Cruces Research Station and Wilson Botanical Garden campus in rural southern Costa Rica, where she teaches the field-based component of this curriculum.

This project stems from the concept of a spiral curriculum, in which topics are repeatedly reinforced throughout the academic program. The two strands of the Helix represent didactic classroom learning and experiential learning in global communities, while common competency themes form the backbone.

The Helix model is collaboratively developed, refined, and taught with HSDM’s project partner, the Inter American Center for Global Health (CISG) and communities served by CISG in rural Costa Rica. CISG is the first global health education hub in Latin America and focuses on transformative global health educational programming with its institutional partners. Helix competency themes include the social determinants of health, the global burden of disease, the integration of oral health and primary care and oral health as part of overall health, comparative health systems and policies and impact on their respective communities, common risk factors for oral and other non-communicable diseases, community empowerment and shared solutions for health improvement, among others.

These competencies will be reinforced and evaluated throughout the curriculum, beginning with a didactic foundation at HSDM, reiterated through practical experience on site with CISG in Costa Rica, and strengthened through guided reflection and repeated didactic learning at HSDM. This educational model will catalyze curriculum growth for dental students interested in global health and will expand the cadre of future global oral health leaders.
AWARDS

Rocio Fuente Perez, PhD, postdoctoral fellow in developmental biology in the Ionescu Lab, received the Best Basic Science Award from The Royal Academy of Medicine and Surgery for her project “Longitudinal Growth, Morphology and Dynamics of Growth Cartilage, Osseous Structure and Phosphorus Metabolism in the Hyp Mouse – The Effect of Several Therapeutic Strategies for X-Linked Hypophosphatemic Patients.” Fuente Perez continues to work on the generation of a new approach for the treatment of X-linked hypophosphatemia in children.

George E. Bork, DDS, MMSc orthodontics candidate, has been selected as a finalist for the American Association of Orthodontists (AAO) Resident Scholar Award for “Effect of a Novel Universal Temporary Anchorage Device (TAD) Placement Guide on Root Proximity, Root Damage and TAD Angulation” (research mentor is Dr. Mohamed I. Masoud).

Anvita Maharishi, BDS, MS, MMSc prosthetics candidate, has been selected by the American Prosthodontics Society for 3rd place in the graduate research competition for “Light Transmission and Wear of Translucent Zirconia After Conventional and Fast Sintering Cycle” (research mentors are Dr. John Burgess and Dr. Edward McLaren at the University of Alabama).

PUBLICATIONS

DEVELOPMENTAL BIOLOGY


ORAL MEDICINE, INFECTION AND IMMUNITY


**ORAL AND MAXILLOFACIAL SURGERY**


**ORAL HEALTH POLICY AND EPIDEMIOLOGY**


**RESTORATIVE DENTISTRY AND BIOMATERIALS SCIENCES**


**MULTI-DEPARTMENTAL**


Dr. Richard Watt

APRIL 7, 2020 — HSDM REB AUDITORIUM

9:00–10:00 am  LECTURE
12:00–1:00 pm  PANEL DISCUSSION

Dr. Richard Watt is a professor of Dental Public Health in the Department of Epidemiology and Public Health, University College London, and Director of Research for Central North West London Nottinghamshire Healthcare Foundation Trust. His research focuses on the social determinants of oral health inequalities and the development and evaluation of health improvement interventions.

The Professor Donald B. Giddon, MD, PhD Annual Lecture in Behavioral Medicine and Dentistry was established through the Harry Rothman Foundation, colleagues, friends, and family in honor of Dr. Giddon in 1980. Giddon is professor emeritus of Developmental Biology at HSDM, clinical professor emeritus of community health at Brown University School of Medicine, and attending physician at New York University Hospital. Giddon is a 1959 DMD graduate from HSDM. The first Giddon Lecture was held in 2008 featuring Dr. Lois Cohen as the speaker.

SAVE THE DATES

SCIENCE SPEAKER SERIES

- March 12, 2020  Dr. Matthew Greenblatt, Cornell
- April 16, 2020  Dr. Tamara Alliston, UCSF
- May 14, 2020  Dr. Catherine McCusker, UMass

HSDM STUDENT RESEARCH DAY

- April 7, 2020  9:00 am –3:00 pm