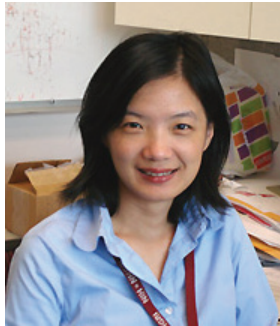
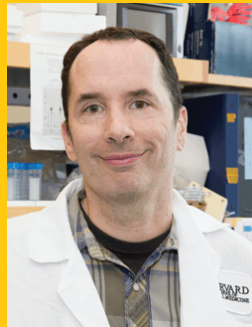


### RESEARCH AWARDS



**Yingzi Yang, PhD,** professor of Developmental Biology and Director of the BSDM PhD Program at HSDM,

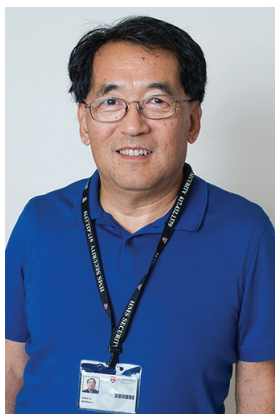
received an award from the University of Pennsylvania Orphan Disease Center for “Mechanistic and Therapeutic Studies of Fibrous Dysplasia in a New Mouse Model.” The overall goal of this project is to investigate cellular and molecular mechanisms underlying Fibrous Dysplasia and test potential treatments in a new mouse model in which the human Fibrous Dysplasia mutation (R201H) has been conditionally knocked into the corresponding mouse Gnas locus.



**Malcolm Whitman, PhD, Named Interim Dean for Research**

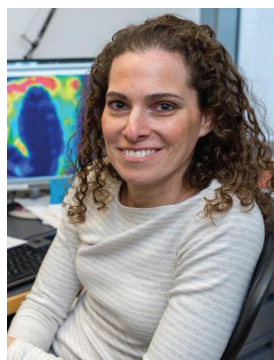
**Dr. Malcolm Whitman, professor of Developmental Biology at HSDM, and associate professor of Cell**

**Biology at HMS, was named Interim Dean for Research at HSDM effective January 1, 2018.** Whitman received his undergraduate degree in Biology from Yale College and his PhD from the Biochemistry and Molecular Biology Department at Harvard University. Whitman will play an essential role in leading the HSDM Office of Research including expanding interdisciplinary research initiatives, increasing the visibility of research, implementing research strategic planning, and enhancing the research curriculum.



**Yefu Li, MD, PhD,** assistant professor of Developmental Biology, received a United States Department of Defense Discovery Award for “Evaluation of

**a Small-Molecule Inhibitor of DDR2 as a Drug in the Treatment of Osteoarthritis.”** The overall goal of this project is to measure the chondro-protective effects of a novel small molecule inhibitor of DDR2 on the progression of articular cartilage degeneration in an injurious mouse model of osteoarthritis.



**Gili Naveh, DMD, PhD,** was promoted to assistant professor in Oral Medicine, Infection and Immunity at HSDM. Naveh is an orthodontist and researcher studying the structure and function relations of ligaments utilizing the periodontal ligament (PDL) as a study model. Naveh received her DMD from Tel Aviv University, Israel in 2005 and while practicing as a general dentist and completed her PhD. In 2014, Naveh joined the Olsen Lab at HSDM and in

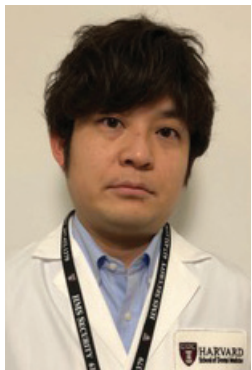
her postdoctoral studies, showed that the PDL is pre-programmed as a non-uniform structure even before gain of function. Moreover the non-uniformity drives internal forces in the PDL which might direct tooth movement. The contribution of internal forces in the PDL to tooth movement, as well as other 3D structural features and their functional implications, are now being further investigated. **Naveh is recruiting graduate students and postdoctoral fellows with a background in biomechanics, bone signaling pathways, optogenetics or 3D modeling. For more information, please visit the Naveh Lab webpage at <https://scholar.harvard.edu/naveh>.**

## VISITING SCHOLARS



**Ai Orimoto, DDS, PhD**, joined the Baron Lab as visiting assistant professor. She has a DDS and PhD in endodontics and is currently an assistant professor in the Department of Restorative Dentistry, Division of Operative Dentistry, at Tohoku University Graduate School of Dentistry, Sendai, Japan. She is heavily engaged in research on the

role of TGFb in Marfan syndrome in the laboratory of Dr M. Saitoohoku at Tohoku University. Orimoto is funded by a Young Leader Investigator Award. Her work is focused on regenerative therapy for Marfan syndrome, analyzing how connective tissue destruction is caused by microfibril insufficiency and the role of TGFb in this destruction. In the Baron Lab, she will focus on the role of cathepsin K in regulating TGFb signaling in osteocytes.



**Yukinori Kuwajima, DDS, PhD**, joined the Nagai Lab as a visiting assistant professor. Kuwajima comes from Kagawa, Japan, and received his DDS in 2007, PhD in 2012 from Iwate Medical University, School of Dental Medicine. He is a Japanese board certified orthodontist. He is working on two projects:

“Therapeutic induction of trans-differentiation of connective tissue fibroblasts into osteoblasts for advanced cleft palate repair” and “Digitalized orthodontics using magnetic forces.”

**Taifeng Zhou, MD, PhD**, joined the Yang Lab as a visting graduate student in the Department of Developmental Biology. Zhou comes from Guangzhou, China, and specializes in spine surgery at the First Affiliated Hospital of Sun Yat-sen University. In the Yang Lab, Zhou will focus on the underlying genetic and pathogenic mechanism

of scoliosis and the molecular investigation of spine development.



## FORSYTH INSTITUTE



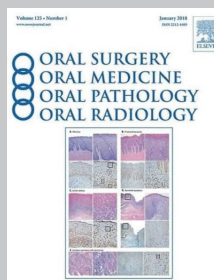
**Gary Borisy, PhD and Colleagues Create Map of the Gut's Microbial Landscape**

A collaborative effort by a team of researchers from the Marine Biological Laboratory in Woods Hole, the Forsyth Institute and Washington University provided an early glimpse of how microbial communities in the gut – known

collectively as the gut microbiome – are spatially organized, uncovering a surprising degree of mixing among different bacterial members. The study, which appeared in the October issue of *The Proceedings of the National Academy of Sciences*, is the first to examine the 3D structure of a diverse array of gut microbes and uncovers some stark differences between the microbial landscape of the gut and those of other body sites, such as the mouth.

“No one has looked at a complex microbial community in the gut this way before,” said senior author Gary Borisy, a senior research investigator at the Forsyth Institute and senior lecturer on developmental biology at HSDM. “If we truly want to understand the role of the microbiome, it is not enough to know just which microbes are present. We must also learn what they are doing, who they are talking to and why. Part of the answer to that problem is to figure out who is next to who and who is next to what.”

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**Maria Carolina Cuevas-Nunez, DMD, DMSc16**,

Assistant professor of Oral and Maxillofacial Pathology at Illinois Midwestern University is the lead author on a publication that is featured on the cover of *Oral Surgery, Oral Medicine, Oral*

*Pathology, Oral Radiology*. Cuevas-Nunez M, Gomes C, Woo SB, Ramsey M, Chen X, Xu S, Xu T, Zhan Q, Murphy G, Lian C. Biological significance of 5 hydroxymethylcytosine in oral epithelial dysplasia and oral squamous cell carcinoma. *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology* 2018;125(1):59-73.

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# SAVE THE DATES

## HSDM FORSYTH CHALK TALK

Xuesong He, PhD, DDS

MARCH 2, 2018

12-1pm @ HSDM

"TM7x / Actinomyces odontolyticus  
XH001: A model system for understanding  
host-associated candidate  
phyla radiation bacteria"

## STUDENT RESEARCH DAY & GIDDON LECTURE

R. Bruce Donoff, DMD, MD

APRIL 10, 2018

@ HSDM

## GOLDHABER AWARD LECTURE

Anne Marie Kuijpers-Jagtman, DDS, PhD

APRIL 11, 2018

3-4pm @ HSDM

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