SHENAM TICKU, BDS, MPH, RECEIVES SHORE FELLOWSHIP

Congratulations to Dr. Shenam Ticku, instructor in Oral Health Policy and Epidemiology for receiving an Eleanor and Miles Shore Faculty Development Award in honor of Aina M. Auskaps, DMD for her project, “Providers’ Attitudes toward Mental Health Screening for Adolescents in a Dental Setting.”

The prevalence of anxiety and depression disorder has been exacerbated by the advent of the pandemic caused by the novel coronavirus (COVID-19). The multiple points of contact provided by a dental visit to a pediatric dentist and an orthodontist offer a unique opportunity to engage and screen adolescents for mental health conditions. Ticku aims to assess the current landscape and attitudes of dental providers on incorporating screening for depression and anxiety disorders. Additionally, she will also evaluate challenges and facilitators around incorporating mental health screening and referrals among pediatric dental and orthodontic practices.

Dr. Ticku received her BDS from J.S.S. Dental College and Hospital, Rajiv Gandhi University of Health Sciences and MPH from Harvard T.H Chan School of Public Health. In 2017, she joined HSDM as a Health Policy Research Fellow under the mentorship of Christine Riedy, MS, PhD, MPH, chair and Delta Dental associate professor of Oral Health Policy and Epidemiology and then promoted to Instructor within her first year. Dr. Riedy stated –

“Dr. Ticku became interested in integrating behavioral health content into dental training and practice as an investigator with our Center for Integration of Primary Care and Oral Health (CIPCOH). With the deleterious impact of COVID-19 on adolescent mental health, her study to explore whether oral health providers (i.e., pediatric dentists/orthodontists) are prepared for, and conduct behavioral health screening and referral of their patients will help us understand if and how these providers can help close unmet gaps in mental health care.”

Dr. Ticku conducts research on behalf of the HSDM Initiative to Integrate Oral Health and Medicine and the Office of Global and Community Health. In this role, she engages in demonstration projects of new modes of oral health delivery and conducts research to understand stakeholder roles in oral health reform. She is also an investigator in the national center funded by the HRSA Academic Units for Primary Care Training and Enhancement program to evaluate the integration of oral health in primary care training. Her research at the Center has focused on integrating oral health competencies in primary care training, the inclusion of behavioral health, social determinants of health in dental education and practice, and creating oral health champions in primary care education.
FACULTY FEATURE

In August 2021, Dr. Lorenzo Tavelli joined the Department of Oral Medicine, Infection, and Immunity as a full-time faculty member in the Division of Periodontology.

Dr. Lorenzo Tavelli graduated from the University of Milan in 2017. He completed his three-year residency in Periodontics and his Master of Science in 2020 at the University of Michigan. His main focus has been to conduct clinical research in periodontal and peri-implant plastic surgery, utilizing ultrasonography, optical scanner based three-dimensional analysis and biomarkers for innovative assessment of healing results. Dr. Tavelli has published more than 60 scholarly publications in the main international peer-reviewed journals while serving as a reviewer for several well-known journals in periodontics and implant dentistry. He was the recipient of several research awards, such as the 2020 American Academy of Periodontology Balint Orban Research Competition, the first prize in the research competition at the 2020 National Osteology Symposium, the 2020 American Academy of Periodontology Foundation School Research Award, and the first prize at the research competition at the 3rd International Symposium on soft tissue management around teeth and implant dentistry in Florence. Since July 2020, Dr. Tavelli has been a clinical lecturer in the Department of Periodontics and Oral Medicine at University of Michigan.

“Dr. Tavelli was recruited after an international search with the specific purpose of enhancing not only our education and clinical care missions in periodontology, but also clinical research in OMII. Please join us in welcoming him,” stated Dr. Roland Baron, chair and professor of the Department of OMII.

Dr. Tavelli will teach periodontology, conduct clinical research and treat patients in the Harvard Dental Center. He will have an office on the 3rd floor of the REB.

The cover image is based on the original article, Ultrasonographic Tissue Perfusion Analysis at Implant and Palatal Donor Sites Following Soft Tissue Augmentation: A Clinical Pilot Study by Lorenzo Tavelli et al.
NEW RESEARCH PERSONNEL

Flavia Amadeu de Oliveira, PhD, MS, Baron-Gori Lab

Flavia Amadeu de Oliveira joined the Baron-Gori Lab in May, 2021 as a postdoctoral research fellow in the Department of Oral Medicine, Infection, and Immunity. She received her PhD from the University of São Paulo, Bauru in 2018 and masters degree in oral biology in 2013. Prior to joining HSDM, Flavia was a postdoctoral associate with Dr. Jose Luis Millan at the Sanford Burnham Prebys Medical Discovery Institute in LaJolla, CA. At HSDM, she will be focusing on exploring the mechanisms by which Sfrp4 regulate cortical bone homeostasis.

Yizhong (Jenny) Hu, MS, PhD, Yang Lab

Yizhong (Jenny) Hu joined the Yang Lab in June, 2021 as a postdoctoral research fellow in the Department of Developmental Biology. She is studying the cellular and molecular mechanisms of mechanotransduction in skeletal development and homeostasis. Jenny received her MS and PhD in biomedical engineering from Columbia University. Her thesis, Microstructure and Biomechanics of Subchondral Bone in the Development of Osteoarthritis, was completed under the mentorship of Dr. X. Edward Guo. Jenny was the recipient of several awards including a Young Investigator Award from The Arnold and Madeleine Penner 7th Annual Musculoskeletal Repair and Regeneration Symposium, a Columbia University Biomedical Technology Accelerator Award, and a Columbia University Presidential Distinguished Fellowship.

Sara Monaci, MSc, PhD, Baron-Gori Lab

Sara Monaci joined the Baron-Gori Lab in August, 2021 as a postdoctoral research fellow in the Department of Oral Medicine, Infection, and Immunity. She received her PhD in 2021 from the International Doctoral School of Molecular Medicine, University of Siena. She had previously earned a BSc in biotechnologies in 2015 and an MSc in medical biotechnologies in 2017 from the University of Siena. Sara is working on signal transduction events in bone cells downstream of the PTH receptor and their influence on cell differentiation and function.
NEW RESEARCH PERSONNEL

Pilar Yesares Rubi, Gibbs Lab
After graduating with a BS in biochemistry from Tufts University in 2020, Pilar joined the Gibbs Lab in January, 2021 as a research assistant in the Department of Restorative Dentistry and Biomaterials Sciences. She is involved in multiple projects, including researching the effects of Resveratrol on dental pulp stem cells and pulp cells; investigating the role of calcitonin gene related peptide in an in vivo mouse model of pulpits; and evaluating the neurotoxicity of various endodontic sealers. She is also involved in a clinical project looking at inflammatory biomarkers and pain outcomes after root end surgery.

Giovanna Sarra, DDS, Baron-Gori Lab
Giovanna Sarra, DDS, joined the Baron-Gori lab in August, 2021 as a visiting graduate student in the Department of Oral Medicine, Infection and Immunity, and will be at HSDM through May 2022. She is currently a PhD student at the University of São Paolo. Giovanna will be working on the role of Sfrp4 in craniofacial and tooth development in the Baron-Gori Lab.

Noël Rouven Stierlin, BSc, Whitman Lab
Noel Stierlin joined the Whitman Lab in June, 2021 as a visiting graduate student in the Department of Developmental Biology. Noël is from Gommiswald, Switzerland. At HSDM he is working on his master of science thesis project while attending ETH Zürich. In the Whitman Lab, Noël is investigating the role of GCN2 and GCN1 in ribosome collisions and stalling events as a signaling hub for the activation of the amino acid starvation response and the integrated stress response.
PUBLICATIONS

DEVELOPMENTAL BIOLOGY


ORAL MEDICINE, INFECTION, AND IMMUNITY


CONTINUED ON PAGE 6


Joshi S, Podar P, Dewhirst F, Podar M. Complete genome sequence of human oral Actinomyces sp. HMT175 strain ORNL0102, a host of the *Saccharibacterium* (TM7) HMT957. *Microbiology Resource Announcements* 2021; Jun 10;10(23):e0041221.


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**ORAL HEALTH POLICY AND EPIDEMIOLOGY**


ORAL AND MAXILLOFACIAL SURGERY


RESTORATIVE DENTISTRY AND BIOMATERIALS SCIENCES


CONTINUED ON PAGE 9
The Forsyth Institute’s current therapies for gum disease involve cleaning pathogenic bacteria away from the root of a patient’s teeth. But the bad bacteria always returns after approximately three months, necessitating long-term management of the disease and consistent maintenance. “We are investigating the host and microbiome interaction in periodontitis—especially how natural regulation of inflammation pathways can help break the chronic inflammation cycle between the host and microbiome,” Yu says.

Yu’s preliminary data supports a growing body of evidence suggesting that eliciting resolution of inflammation pathways plays an important role in alleviating the negative effects of gum disease. In an animal model, Yu found that transgenic mice that have been modified to over-express the RvE1 receptor, which reduces excess inflammation, developed less periodontal bone loss than non-modified mice. The AADR fellowship will allow her to explore this finding further. “For this new project, I would like to dig deeper into the metagenomics landscape so we can know better what is happening in this periodontitis and how inflammation resolution can affect the microbiome,” Yu says.

The Anne D. Haffajee Fellowship was created in recognition of Dr. Haffajee’s many contributions to clinical research in Periodontology and Oral Biology and her prominence as a female leader and role model in the field. “I’m truly honored to receive a fellowship in recognition of Dr. Haffajee and to carry on the tradition of her legacy,” Yu says.


MULTI DEPARTMENTAL


NING YU, DDS, PHD, RECEIVES AADR HAFFAJEE FELLOWSHIP

Ning Yu, DDS, PhD, a postdoctoral research fellow in the Van Dyke Lab at the Forsyth Institute and Department of Oral Medicine, Infection, and Immunity at HSDM, received the 2021 American Association for Dental Research (AADR) Anne D. Haffajee Fellowship.
TELEDENTISTRY HELPING SPECIAL NEEDS PATIENTS

Dr. Shibani Sahni, BDS, MMSc in Dental Education and Lecturer on Oral Health Policy and Epidemiology, is lead author on a manuscript investigating the effectiveness of teledentistry in meeting patient needs.

The purpose of this study was to evaluate whether a newly implemented teledentistry pilot had met the dental needs of the patients (special needs school children), and increased knowledge, critical thinking, and supported learning objectives of teledentistry education for dental students.

Sahni stated, "The importance of working on developing ways to teach teledentistry to predoctoral students can not be overlooked. Teledentistry has become a vital method of patient treatment during the COVID-19 pandemic, and has the potential to expand access to dentists for patients across the country who are unable to be seen in person for any number of reasons."

Collaborators on the study include the following faculty and advanced graduate education students: Dr. Shibani Sahni, lecturer on Oral Health Policy and Epidemiology, Dr. Tejasvita Chandel, dental public health resident; Dr. Neeta Chandwani, assistant professor of developmental biology; Dr. Sang Park, associate professor of Restorative Dentistry and Biomaterials Sciences; Dr. Elizabeth Alpert, research fellow in Oral Health Policy and Epidemiology; Ms. Jane Barrow, lecturer on Oral Health Policy and Epidemiology; and, Dr. Sondos Alghamdi, dental public health resident.

COMMUNITY ORAL HEALTH ASSESSMENT AWARD

Alec Eidelman, DMD, research fellow in Oral Health Policy and Epidemiology and dentist at the Cambridge Health Alliance, received an award for his project “Community Oral Health Assessment.”

The Oral Health Department at Cambridge Health Alliance (CHA) along with Health Resources in Action is pleased to announce a collaboration to develop quality integrated oral health services. The project aims to better understand how CHA can provide and deliver resources and services to improve the oral health of populations that have experienced barriers to receiving this critical care. Outcomes from this initiative will help to inform the oral health delivery models applied at CHA to be shared with the broader academic communities and healthcare agencies.
SAVE THE DATES

October 28-29, 2021

Forsyth Scientific Symposium: Oral Microbiome —Beyond Bacteria

The Symposium will bring together a group of scientists with diverse research backgrounds in oral microbiome (including oral bacteriome, mycobiome, virome and CPR) and different career stages to share their research and ideas.

A key objective is to identify biological questions and technical roadblocks that must be overcome to achieve a more comprehensive understanding of the impact of the oral microbiota on host health and disease from a holistic point of view. Meanwhile, the meeting will promote collaborations and provide a great opportunity for trainees to interact with experts in the field and promote their research. For registration and additional information, please visit – https://www.forsyth.org/event_symposium2021/

HSDM SCIENCE SPEAKER SERIES

September 21, 2021
12 pm – 1 pm – via Zoom
http://bit.ly/3aw1Jau

Benjamin Wu, DDS, PhD
“Bioengineering the Future of Prosthodontics”

Professor and Chair of the Division of Advanced Prosthodontics and Director of the Weintraub Center for Reconstructive Biotechnology, UCLA

A PUBLICATION OF THE OFFICE OF RESEARCH

Yingzi Yang, PhD
Professor of Developmental Biology, Associate Dean for Research, Director, Biological Sciences in Dental Medicine PhD Program

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