Biomedical Informatics Grand Rounds
Wednesday, February 15th, 2023 3:00 pm – 4:00 pm

Artificial Intelligence in Dentistry and Maxillofacial Radiology

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Remote Access
Join Zoom Meeting: https://stonybrook.zoom.us/j/95617197636?pwd=KytzZ2pVRG9SZGpKZUtpNXJISjNjZz09
Meeting ID: 956 1719 7636 Passcode: 924293
In-Person talk: Medical and Research Translation (MART) Building, Room location 7M-0602

Bio of Dr. Dan Colosi: Dr. Dan Colosi is Associate Professor and Interim Chair of the Department of Prosthodontics and Digital Technology at Stony Brook University School of Dental Medicine, and Past President of the American Academy of Oral and Maxillofacial Radiology. As board-certified oral and maxillofacial radiologist, Dr. Colosi serves as Director of Diagnostic Imaging at Stony Brook University School of Dental Medicine. He instructs in the advanced education program in oral and maxillofacial radiology (OMFR) and oversees the predoctoral curriculum in OMFR. His clinical practice focuses on interpretation reports and professional consultations in cone-beam CT and conventional dental imaging.
Dr. Colosi's research interests include the characterization of novel applications of maxillofacial imaging modalities, artificial intelligence utilization in maxillofacial imaging, and applications in clinical and forensic practice of dental cone-beam CT. He reviews manuscripts for several dental journals, including Oral Surgery Oral Medicine Oral Pathology Oral Radiology Endodontics, Dentomaxillofacial Radiology and the Journal of Dental Education.

Bio of Dr. Mina Mahdian: Dr. Mina Mahdian is the director of the Advanced Education Program in Oral and Maxillofacial Radiology and assistant professor in the Division of Diagnostic Imaging, Department of Prosthodontics and Digital Technology at Stony Brook University School of Dental Medicine. Dr. Mahdian earned her DDS degree from Shahid Beheshti University School of Dentistry in Iran and completed her oral and maxillofacial radiology residency and Master of Dental Sciences programs at the University of Connecticut School of Dental Medicine. She has published numerous articles on advanced imaging and image analysis technologies in dentistry and was awarded the prestigious AAOMR XDR Grant for her work on "Detection and classification of dental caries using deep learning on optical coherence tomography images". Her current research is focused on the applications of artificial intelligence in dentistry.

Abstract: The application of artificial intelligence (AI) is being widely explored, or even utilized in clinical practice, in multiple areas of dentistry. We will discuss proposed AI-supported processes in dentistry, including automated image interpretation, disease prediction and AI-supported treatment decisions. We will present ongoing AI research in oral and maxillofacial imaging from the School of Dental Medicine's Department of Prosthodontics and Digital Technology. We will conclude by discussing challenges and opportunities of AI utilization in dentistry and oral and maxillofacial imaging.

Educational Objects:
1. To review emerging applications of AI in dentistry.
2. To present research aspects of AI in oral and maxillofacial imaging.
3. To discuss challenges and opportunities of AI utilization in dentistry and oral and maxillofacial imaging.

Disclosure Statement: The faculty and planners have no relevant financial relationship with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing health care products used by or on patients.

Continuing Medical Education Credits: The School of Medicine, State University of New York at Stony Brook, is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The School of Medicine, State University of New York at Stony Brook designates this live activity for a maximum of **1 *AMA PRA Category 1 Credits™*.** Physicians should only claim credit commensurate with the extent of their participation in the activity.