



Our AI Research Initiatives College of Dentistry

- The UF College of Dentistry seeks to enhance its work using AI/ML approaches to improve patient outcomes and prognosis in patients with pre-malignant and malignant lesions in the oral cavity and jaws, and to use known risk factors and correlating appearance of intraoral lesions with genomic markers and histopathology.
- The college will pursue the use of AI neural networks to identify patterns of gene expression associated with the development of oral diseases, such as periodontal diseases and head and neck cancers, and integrate them with other 'omics' data.
- Dentistry is part of an ongoing interdisciplinary program with the UF colleges of engineering, nursing, and public health and health professions using virtual patient simulation to strengthen interprofessional teams to solve health care disparities issues, particularly in emergency rooms where communications issues between different healthcare providers can affect patient care. Teaching students and residents how to address health care needs while engendering cultural sensitivity and empathy will create and strengthen interprofessional teams needed to address patient's clinical needs comprehensively – from didactic to clinical settings. The ultimate goal is to ensure that medical and substance abuse concerns, and broader determinants of health such as education, pharmacological medical, nutrition and oral health, are addressed.