Division of Biomaterials and Bioengineering  
Department of Oral Rehabilitation

Outline

Main research focus in the department is to develop novel biomaterials and biodevices for improving health of patients with oral and craniofacial diseases. Specifically, we are investigating the surface modifications of medical and dental devices to enhance cell and tissue compatibility, and also to provide the surface with an antibacterial property using various chemical, biochemical, and physical methods. The department encourages an open laboratory concept. All facilities and equipments (XPS, micro-XRD, Laser Raman Spectroscopy, FT-IR, SEM/EDX, SPM, ICP-AES, EIS, etc., see next page) are available for use by all researchers and graduate students in Health Sciences University of Hokkaido. Our research interests are shown below.

Faculty members

Professor; Kazuhiko Endo B.E., M.E, Ph.Ds. in Dentistry & Engineering  
Associate professor; Takashi Nezu B.S., M.S., Ph.D. in Science  
Assistant professor; Futami Nagano-Takebe B.Dent., Ph.D. in Dentistry

Postgraduate students

Akashlynn Badruddoza Dithi B.D.S.

Main research in progress

1) Chemical and physical modifications of implant surfaces for promoting desirable cell and tissue responses  
2) Degradation of metallic surgical implants and biological responses  
3) Application of electrochemical techniques for evaluating the corrosion resistance of metallic biomaterials  
4) Physico-chemical analyses of attached functional molecules on the biomaterials surface
Current publications


