Outline
The specialty of orthodontics is concerned with the study and treatment of malocclusions, which may be a result of tooth irregularity, disproportionate jaw relationships and orofacial malfunctions. Orthodontic treatment focuses not only on dental and occlusal problems, but also deals with the control and modification of maxillofacial growth and morphology. High-quality outcomes of orthodontic treatment can only be accomplished with comprehensive knowledge about growth and development of maxillofacial region, occlusion, materials sciences, and diagnostics and therapeutics of malocclusion. Our research interests were shown below.

Faculty members
Professor: Itaru MIZOGUCHI, D.D.S., Ph.D.
Associate professor: Masahiko IIJIMA, D.D.S., Ph.D.
Assistant professor/full-time lecturer: Jun UECHI, D.D.S., Ph.D.
Assistant professor/research associate:
Atsue YAMAZAKI, D.D.S., Ph.D., Takeshi MUGURUMA, D.D.S., Ph.D., Miki OKAYAMA, D.D.S., Ph.D.
(Gold medalist of World Bench Press Championships), Naoko TORIYA, D.D.S., Ph.D.
Clinical instructor:
Postgraduate students
Haruna KASHIO, D.D.S.
Saera MIYATA, D.D.S.
Kyotaro KAWAGUCHI, D.D.S.
Yuki TOMITA, D.D.S.
Masaru YAMAGUCHI, D.D.S.
Takuya ODACHI, D.D.S.
Naohiko KAWAMURA, D.D.S.
Ji Yeong LEE, D.D.S.

Main research in progress
1) Extracellular matrix in the temporomandibular joint (TMJ)
2) Orthodontic materials research
3) Three dimensional (3D) analysis of orthodontic tooth movement
4) Development of a new diagnostic system for orthodontic treatment based on spatial arrangement features of dentitions and elements of the crano-maxillofacial skeleton
5) Signaling by mechanical strain in human periodontal ligament cells in vitro

Current publications