



Department of Orthodontics

Welcome to the Department of Orthodontics. This department is dedicated to advancing the science of orthodontics and dentofacial orthopedics through research, teaching and clinical practices. The mission of our department is to educate both pre-doctoral dental students and graduate students to be proficient at treating the broad scope of occlusal and dentofacial malocclusions. We also wish to serve the surrounding community as an educational resource and as a provider of quality orthodontic treatment. The pre-doctoral dental students can receive various ethical and laboratory instructions as well as opportunities to gain clinical experience. The graduate program consists of intensive ethical, clinical, and research components. Special emphasis is placed on diagnosis and treatment planning, growth and development, biomechanics, and occlusion, utilizing scientific research to help develop critical thinking and writing skills while making a significant contribution to the scientific literature. We hope you will find this information useful.

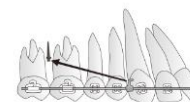
Staff

Position	Name
Professor	Hiroshi KAMIOKA
Associate Professor	Noriaki KAWANABE
Senior Assistant Professor	Takashi IZAWA
Senior Assistant Professor	Satoru HAYANO
Assistant Professor	Hiroki UEDA
Assistant Professor	Masahiro NAKAMURA
Assistant Professor	Mitsuhiro HOSHUIJIMA
Assistant Professor	Kana KONO
Assistant Professor	Mana HASHIMOTO

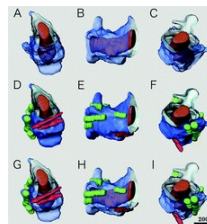
Research

Our research interests are as follows:

- Mechanical response in artificially controlled osteocyte network
- Virtual bone reflecting microstructure of real bone
- Visualization of osteocyte mechanotransduction in living bone
- The new paradigm to search the bioscientific mechanism of malocclusion
- New approach to the mechanism of the pain caused by orthodontic tooth movement
- The possible role of autophagy in craniofacial development
- Investigation of periodontal tissue regeneration using human periodontal ligament SP cells
- Investigation of identification and purification of human deciduous tooth-derived stem cells



Implant-anchored orthodontics



3D reconstruction of a canalculus containing an osteocyte process

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Educator

The graduate program consists of intensive ethical, clinical, and research components. Special emphasis is placed on diagnosis and treatment planning, growth and development, biomechanics, and occlusion. We utilize scientific research to help develop critical thinking and writing skills while making a significant contribution to the scientific literature. The program is designed to provide the broad knowledge and basic skills of orthodontics and dentofacial deformity, mainly concerning the diagnostic procedure and treatment techniques. It also offers a wide variety of experience with all ranges of orthodontic patients, including patients with complex problems which require orthognathic surgery, and patients with facial clefts and other craniofacial abnormalities. The program can be combined with a PhD programme of Okayama University, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences. The combined postgraduate – PhD programme is of four years duration and grants a PhD degree upon fulfillment of the necessary requirements (mainly a doctoral thesis).

Contact

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