

## Division of Periodontology and Endodontology Department of Oral Rehabilitation

### Outline

Major subjects we are responsible for in the undergraduate and postgraduate education are Periodontology and Endodontology. Our staffs treat patients suffering mostly from periodontal diseases, pulp diseases and periapical lesions, especially patients with severe periodontitis to whom multidisciplinary approach including periodontal, endodontic, orthodontic and prosthodontic treatments is required. Our division has been performing basic as well as clinical research on the topics listed below.

### Faculty members

Professor;

Yasushi FURUICHI, D.D.S., Ph.D.

Toshiyuki NAGASAWA, D.D.S., Ph.D. (concurrent position)

Assistant Professor/Lecturer;

Mari MORI, D.D.S., Ph.D. (concurrent position)

Satsuki KATO, D.D.S., Ph.D.

Associate Professor;

Takashi KADO, D.D.S., Ph.D. (concurrent position)

Assistant Professor/Research Associate;

Shintaro SHIMIZU, D.D.S., Ph.D.

Kousei MATSUMOTO, D.D.S., Ph.D.

Kanako SHITOMI, D.D.S., Ph.D.

Clinical Instructor

Momoko FUJITA, D.D.S.



Y. Furuichi



T. Nagasawa



M. Mori



S. Kato



T. Kado



S. Shimizu



K. Matsumoto



K. Shitomi



M. Fujita

## Postgraduate Students;

Takashi MATSUMOTO, DH  
Urangoo SUGARBAATAR, D.D.S.  
Shunsuke YANASE, D.D.S.  
Sarita GIRI, D.D.S.  
Yoshiki FUJIMOTO, D.D.S.  
Hiroshi NAKAGAWA, D.D.S.  
Yukichi OKADA, D.D.S.



## Activities



Education



Clinic



Research & Clinical discussion

## Main research in progress

- 1) Association between periodontal disease/treatment and systemic health.
- 2) Periodontal regeneration using growth factors and somatic stem cells.
- 3) Application of surface modification technology to dental materials and devices.
- 4) Development of mouth rinses/dentifrices containing plant products.
- 5) Roles of various microorganisms in the pathogenesis of periodontal disease.
- 6) Development of materials enhancing the efficacy of endodontic treatments.

## Current publications

- \* Elena Figuero, Yiping W Han, Yasushi Furuichi: Periodontal diseases and adverse pregnancy outcomes: Mechanisms. *Periodontol 2000*. 2020 Jun;83(1):175-188. doi: 10.1111/prd.12295.
- \* Ichioka Y, Kado T, Mashima I, Nakazawa F, Endo K, Furuichi Y. Effects of chemical treatment as an adjunctive of air-abrasive debridement on restoring the surface chemical properties and cytocompatibility of experimentally contaminated titanium surfaces. *J Biomed Mater Res B Appl Biomater*. 2020 Jan;108(1):183-191. doi: 10.1002/jbm.b.34377.
- \* Shungin D, et al. Genome-wide analysis of dental caries and periodontitis combining clinical and self-reported data. *Nat Commun*. 2019 Jun 24;10(1):2773. doi: 10.1038/s41467-019-10630-1.
- \* Kado T, Aita H, Ichioka Y, Endo K, Furuichi Y. Chemical modification of pure titanium surfaces to enhance the cytocompatibility and differentiation of human mesenchymal stem cells. *Dent Mater J*. 2019 Dec 1;38(6):1026-1035. doi: 10.4012/dmj.2018-257
- \* Takada A, Matsushita K, Horioka S, Furuichi Y, Sumi Y. Bactericidal effects of 310 nm ultraviolet light-emitting diode irradiation on oral bacteria. *BMC Oral Health*. 2017 Jun 6;17(1):96. doi: 10.1186/s12903-017-0382-5.
- \* Kitamura et al. Randomized Placebo-Controlled and Controlled Non-Inferiority Phase III Trials Comparing Trafermin, a Recombinant Human Fibroblast Growth Factor 2, and Enamel Matrix Derivative in Periodontal Regeneration in Intrabony Defects. *J Bone Miner Res*. 2016 Apr;31(4):806-14. doi: 10.1002/jbmr.2738.