

Division of Oral Medicine and Pathology

Department of Human Biology and Pathophysiology

Outline

The specialty of oral medicine and pathology is concerned with diagnosis and study of the causes and effects of diseases affecting the oral and maxillofacial region. We perform pathological diagnosis of the surgical specimens obtained from oral and maxillofacial regions. We see the patients mainly suffering from oral psychosomatic disorders such as burning mouth syndrome, atypical odontalgia and dry mouth at the “Oral Medicine Consultation Clinic” in our hospital. Our research interests are shown below.

Faculty members

Professor ; Yoshihiro ABIKO, B.A., D.D.S., Ph.D.

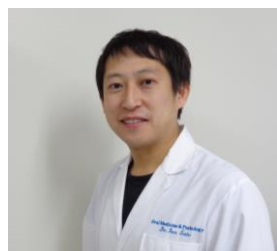
Assistant professor/full-time lecturer ; Jun SATO, D.D.S., Ph.D.

Assistant professor/research associate ; Koki YOSHIDA, D.D.S., Ph.D.

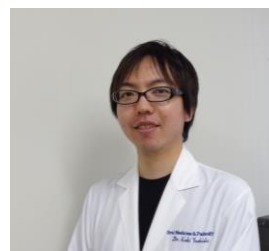
Tetsuro Morikawa, D.D.S., Ph.D.



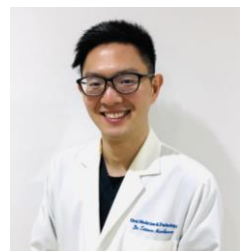
Yoshihiro ABIKO



Jun SATO



Koki YOSHIDA



Tetsuro MORIKAWA

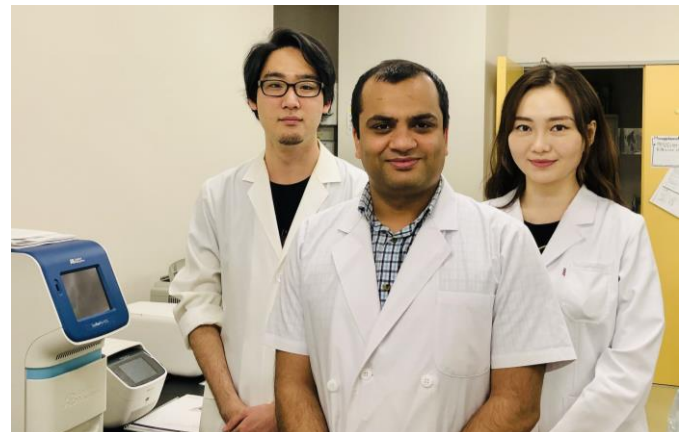
Postgraduate students

Jun ITO, P.A.M.

Durga PAUDEL, D.D.S.

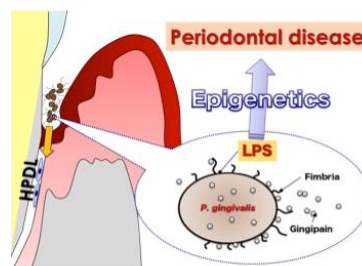
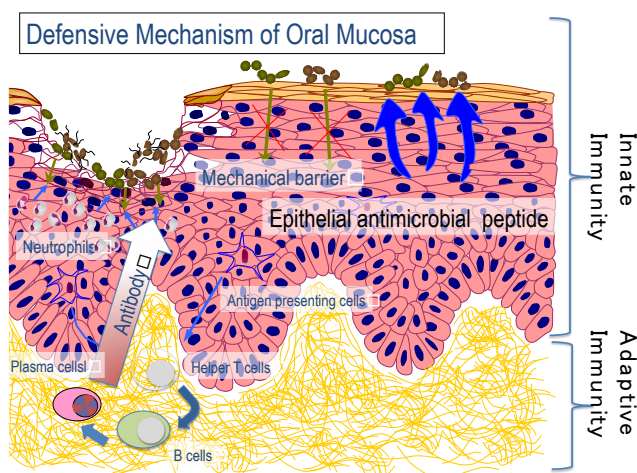
Shuhei TAKAHASHI, D.D.S.

Ariuntsetseg KHURELCHULUUN, D.D.S.

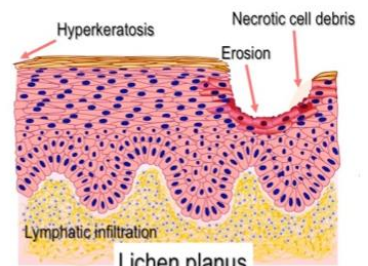


Main research in progress

- 1) Epithelia antimicrobial peptides in oral health and diseases
- 2) Involved in epigenetics in oral diseases
- 3) Application of Epithelial rest of Malassez for tissue regeneration
- 4) Elucidation of the pathogenesis of the medically unexplained oral symptom



Hypermethylation of extracellular matrix-related peptide in PDL cells by LPS



Hypermethylation of cell adhesion molecules in Lichen planus

Recent publications

- 1: Neopane P, Kurashige Y, Yoshida K, Uehara O, Paudel D, Morikawa T, Sato J, Saitoh M, Abiko Y. Involvement of RNase 7 in the malignant potential of oral squamous cell carcinoma cells. *Oncol Rep.* 2020 (in press)
- 2: Paudel D, Morikawa T, Yoshida K, Uehara O, Giri S, Neopane P, Khurelchuluun A, Hiraki D, Sato J, Abiko Y. Chronic stress-induced elevation of IL-1 β in the saliva and submandibular glands of mice. *Med Mol Morphol.* 2020 Apr 6. doi:10.1007/s00795-020-00250-w.
- 3: Kobayashi F, Uehara O, Ito C, Furusawa M, Abiko Y, Muramatsu T. DNA methylation of GJA1, BMP2 and BMP4 in a human cementoblast cell line induced by lipopolysaccharide. *Int Endod J.* 2020 Feb 3. doi: 10.1111/iej.13275.
- 4: Islam S, Uehara O, Matsuoka H, Kuramitsu Y, Adhikari BR, Hiraki D, Toraya S, Jayawardena A, Saito I, Muthumala M, Nagayasu H, Abiko Y, Chiba I. DNA hypermethylation of sirtuin 1 (SIRT1) caused by betel quid chewing-a possible predictive biomarker for malignant transformation. *Clin Epigenetics.* 2020 Jan 13;12(1):12.
- 5: Paudel D, Utsunomiya M, Yoshida K, Giri S, Uehara O, Matsuoka H, Chiba I, Toyofuku A, Abiko Y. Pharmacotherapy in relieving the symptoms of burning mouth syndrome: A 1-year follow-up study. *Oral Dis.* 2020 Jan;26(1):193-199.
- 6: Toraya S, Uehara O, Hiraki D, Harada F, Neopane P, Morikawa T, Takai R, Yoshida K, Matsuoka H, Kitaichi N, Chiba I, Abiko Y. Curcumin inhibits the expression of proinflammatory mediators and MMP-9 in gingival epithelial cells stimulated for a prolonged period with lipopolysaccharides derived from *Porphyromonas gingivalis*. *Odontology.* 2020 Jan;108(1):16-24.
- 7: Neopane P, Paudel D, Yoshida K, Raj Adhikari B, Morikawa T, Onishi A, Hiraki D, Uehara O, Sato J, Nishimura M, Chiba I, Abiko Y. Immunohistochemical Localization of RNase 7 in Normal and Inflamed Oral Epithelia and Salivary Glands. *Acta Histochem Cytochem.* 2019 Apr 25;52(2):35-43.
- 8: Tu TTH, Abiko Y, Toyofuku A. Mental health disorders. *Br Dent J.* 2019 Dec;227(12):1010.
- 9: Paudel D, Nishimura M, Adhikari BR, Hiraki D, Onishi A, Morikawa T, Neopane P, Giri S, Yoshida K, Sato J, Ono M, Kamino Y, Nagayasu H, Abiko Y. Secretory Carcinoma of Minor Salivary Gland in Buccal Mucosa: A Case Report and Review of the Literature. *Case Rep Pathol.* 2019 Mar 27;2019:2074504.
- 10: Islam S, Muthumala M, Matsuoka H, Uehara O, Kuramitsu Y, Chiba I, Abiko Y. How Each Component of Betel Quid Is Involved in Oral Carcinogenesis: Mutual Interactions and Synergistic Effects with Other Carcinogens-a Review Article. *Curr Oncol Rep.* 2019 Apr 26;21(6):53. doi: 10.1007/s11912-019-0800-8.
- 11: Tu TTH, Takenoshita M, Matsuoka H, Watanabe T, Suga T, Aota Y, Abiko Y, Toyofuku A. Current management strategies for the pain of elderly patients with burning mouth syndrome: a critical review. *Biopsychosoc Med.* 2019 Jan 31;13:1. doi: 10.1186/s13030-019-0142-7.
- 12: Islam S, Abiko Y, Uehara O, Chiba I. Sirtuin 1 and oral cancer. *Oncol Lett.* 2019 Jan;17(1):729-738.
- 13: Adhikari BR, Nishimura M, Takimoto K, Harada F, Onishi A, Hiraki D, Paudel D, Neopane P, Utsunomiya M, Morikawa T, Yoshida K, Sato J, Shakya M, Nakayama E, Nagayasu H, Abiko Y. Adenomatous ductal proliferation/hyperplasia in the parotid gland associated without any other pathological lesions; a report and survey of the literatures. *Med Mol Morphol.* 2018 Dec;51(4):244-248.
- 14: Neopane P, Nepal HP, Shrestha R, Uehara O, Abiko Y. In vitro biofilm formation by *Staphylococcus aureus* isolated from wounds of hospital- admitted patients and their association with antimicrobial resistance. *Int J Gen Med.* 2018 Jan 18;11:25-32.
- 15: Harada F, Uehara O, Morikawa T, Hiraki D, Onishi A, Toraya S, Adhikari BR, Takai R, Yoshida K, Sato J, Nishimura M, Chiba I, Wu CZ, Abiko Y. Effect of systemic administration of lipopolysaccharides derived from *Porphyromonas gingivalis* on gene expression in mice kidney. *Med Mol Morphol.* 2018 Sep;51(3): 156-165.
- 16: Harada F, Morikawa T, Lennikov A, Mukwaya A, Schapper M, Uehara O, Takai R, Yoshida K, Sato J, Horie Y, Sakaguchi H, Wu CZ, Abiko Y, Lagali N, Kitaichi N. Protective Effects of Oral Astaxanthin Nanopowder against Ultraviolet-Induced Photokeratitis in Mice. *Oxid Med Cell Longev.* 2017;2017:1956104. doi: 10.1155/2017/1956104.
- 17: Lee DJ, Lee JM, Kim EJ, Takata T, Abiko Y, Okano T, Green DW, Shimono M, Jung HS. Bio-implant as a novel restoration for tooth loss. *Sci Rep.* 2017 Aug 7;7(1):7414. doi: 10.1038/s41598-017-07819-z
- 18: Uehara O, Takimoto K, Morikawa T, Harada F, Takai R, Adhikari BR, Itatsu R, Nakamura T, Yoshida K, Matsuoka H, Nagayasu H, Saito I, Muthumala M, Chiba I, Abiko Y. Upregulated Expression of MMP-9 in Gingival Epithelial Cells Induced by Prolonged Stimulation with Arecoline. *Oncol Lett.* 2017 Jul;14(1):1186-1192.