

ANNUAL PUBLICATIONS

2nd Department of Conservative Dentistry (Dept. of Periodontology)

1993.1.-2000.3.

I. Staffs and Students (April, 1999)

Professor	I. Ishikawa
Associate Professor	H. Watanabe
Lecturer	S. Hagiwara
	S. Oda
Research Associate	M. Umeda
	K. Noguchi
	H. Nitta
	A. Kinoshita
	T. Nagasawa
	A. Aoki
	S. Arakawa
Hospital Staff	M. Aramaki
	K. Bando
	H. Akiyama
	M. Miura-Takamori
	Y. Murata
	A. Murata
	T. Masaka
	Y. Tominaga
Secretary	F. Enomoto
Graduate Student	H. Kato
	H. Kobayashi
	H. Yazawa
	S.S.Miguel
	K. Iwasaki
	Y. Kawashima
	S. Kikuchi
	Y. Takeuchi
	K. Ikeda
	H. Ishikura
	M. Ishizuka
	T. Iwata
	T. Sato
	Y. Shirakata
	T. Matsuyama
	K. M. Sasaki
	M. Usui
	K. Sena
	H. Yoshino
	H. Yi
Clinical Training Staff	W. Ishimura
	Y. Tsuha
	Y. Sodeyama
	M. Nakazawa
	K. Hori
	D. Yasunaga
	M. Kan

2nd Department of Conservative Dentistry (Dept. of Periodontology)

	R. Kotani
	N. Namiki
	N. Arai
	S. Ishikawa
	F. Kanamaru
	T. Kamiyama
	T. Hidaka
	D. Furuse
Research Associate	T. Kojima
JSPS Postdoctoral Fellow	J. Hayashi
	T. He
	Y. Morotome
	R. D. Wagner
Special Student	N. Nakagawa
	Y. Ogasawara
	J. Yoshino
	W. Fumimoto
	H. Tsuchioka
	M. Uchino
	N. Kawakatsu
	S. Saso
	K. Tanaka
	H. Negishi
	S. Ishii
	M. Saito
	Y. Kanazuka
	M. Suzuki
	T. Yoshino
	T. Higuchi
	A. Kobayashi
	A. Yano
	M. Kuchira
	H. Nakashima
	N. Ogura
	M. Kawamura
	M. Akagiri
	K. Kimura
	J. Miura
	T. Kato
	S. Hara
	T. Ogata
	P. Amir
	Y. Motono
Part-time Lecturer	H. Suzuki
	H. Konno
	K. Hasegawa
	T. Sato
	T. Yashima
	A. Ishihara
	T. Watanabe
	S. Yasui
	M. Uoshima

	E. Sugiyama
Registered training	J. Mishima
doctor	N. Okawara
	Y. Harada
	G. Watanabe
	K. Yano
	T. Otake
	M. Watanabe

II. Educational Outline of Graduate Course

The primary objective of the graduate school in periodontics is to produce a clinically proficient, scientifically oriented, analytical, thoughtful, and ethical periodontist. It is anticipated that a graduate will be capable of discovering and disseminating knowledge resulting in the improvement in the quality of life for people, especially those with periodontal diseases.

Periodontitis might be initiated by microbial challenge followed by the host-immune or inflammatory response. Periodontal tissues were destroyed through the function of cytokines, prostaglandines, and matrix metaloproteases produced by host defense mechanisms. Furthermore, genetic, environmental and acquired risk factors also contribute to the initiation and progression of this disease. Therefore, in addition to periodontics, it is required to learn several fields such as microbiology, immunology, biochemistry, anatomy, etc.

The program is a rigorous, full-time schedule consisting of both clinic and basic research for the analyses of the pathogenesis of periodontitis and a wide range of therapeutic modalities, including regenerative therapy.

III. Research Subjects

(1993-1994)

- 1) Microbiological and molecular biological investigation of periodontal disease
- 2) Immunological analysis of periodontal disease
- 3) Investigation of periodontal regeneration
- 4) Investigation of local antimicrobial drug delivery system in periodontal therapy
- 5) Application of laser to periodontal treatment

(1995-1997)

- 1) Microbiological and molecular biological investigation of periodontal disease
- 2) Immunological analysis of periodontal disease
- 3) Investigation of periodontal regeneration
- 4) Investigation of local antimicrobial drug delivery system in periodontal therapy
- 5) Application of laser to periodontal treatment

(1998-1999)

- 1) Periodontitis and periodontopathic bacteria
- 2) Application of lasers to periodontal treatment
- 3) Investigation of periodontal regeneration
- 4) Immunology and Periodontal diseases
- 5) Roles of inflammatory mediators in periodontal disease

IV. Publications (January, 1993-March, 2000)

A. Original Articles

- 1) Koseki T.: Isolation and characterization of oral *Treponemes*. J. Stomatol. Soc., Jpn. 60:149-168,1993 (in Japanese).
- 2) Yoshida N.: Purification of human neutrophil collagenase,establishment of its monoclonal antibodies and application to gingival crevicular neutrophils. J. Stomatol. Soc., Jpn. 60:121-130,1993 (in Japanese).
- 3) Nagasawa T., Sano K., Ike F., Kishimoto H., Nakayama T., Asano Y., Ishikawa I., Tada T.: Negative selection of thymus-dependent CD4+CD8+ intestinal intraepithelial lymphocytes by internal superantigen. Cellular Immunology 147:158-166,1993.

- 4) Yasui S., Kojima T., Hata S., Zhang YJ., Umeda M., Ishikawa I.: Rapid identification of *Porphyromonas gingivalis* by bisulfite-modified DNA probe method. J. Periodont. Res. 28:98-101, 1993.
- 5) Watanabe H, Umeda M, Ishikawa I.: Clinical and laboratory studies of severe periodontal disease in an adolescent associated with hypophosphatasia - a case report. J. Periodontol. 64: 174-180, 1993.
- 6) Boutsis EA.: Analysis of immunodominant antigens of *Porphyromonas gingivalis* 381 in high responder patients. Bull Tokyo Med Dent Univ 40:45-58,1993.
- 7) Kubota K., Hollist NO., Olusile AO., Yonemitsu M., Minakuchi S., Watanabe H., Ohsawa K., Ohnishi M., Ono Y., Ajayi-Obe SO., Grillo TA.: Joint epidemiological longitudinal dental survey in Nigeria, especially in comparison with that of Japanese. Bull Tokyo Med Dent Univ 40: 59-78,1993.
- 8) Iida M., Ando Y., Watanabe H., Ishikawa I.: Effect of GaAlAs-semiconductor laser irradiation on dentin hypersensitivity of exposed root surface and influence to micro-flora in dento-gingival region. J. Jpn. Soc. Laser Dent. 4:3-7,1993 (in Japanese).
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- 10) Ando Y., Aoki A., Suzuki K., Umeda M., Watanabe H., Ishikawa I.: Bactericidal effect of Er:YAG laser on periodontopathic bacteria. J. Jpn. Soc. Periodontol. 35:374-381,1993 (in Japanese).
- 11) Izumi Y., Aoki A., Akimoto K., Hayashi J., Hagiwara S., Ishikawa I., Sueda T., Okada S.: Comparative study of the effectiveness of type I and II treatment modalities for periodontal disease in the Japanese health insurance service system. J Jpn Soc Periodontol 35:404-408,1993 (in Japanese).
- 12) Zhang YJ.: Heterogeneity of *Porphyromonas gingivalis* strains on fimbrillin gene locus by restriction fragment length polymorphism analysis. The Bulletin Board of Tokyo Medical and Dental University 40: 113-123,1993.
- 13) Sato F., Boutsis E., Hagiwara S., Ishikawa I.: Evaluation of clinical indices during and after scaling and root planing. Analecta Periodontologica Yearbook of the Hellenic Society of Periodontology 4:138-149,1993.
- 14) Nitta H., Ishikawa I.: Analysis of the genetic control of antibody response to *Acetivobacillus actinomycetemcomitans* by immunoblotting in inbred strains of mice. Oral Microbiol. Immunol.8:141-145,1993.
- 15) Nitta H., Kameyama Y., Ishikawa I.: Unusual gingival enlargement with rapidly progressive periodontitis. Report of a case. J. Periodontol. 64:1008-1012, 1993.
- 16) Kojima T., Yasui S., Ishikawa I.: Distribution of *Porphyromonas gingivalis* in adult periodontitis patients. J. Periodontol. 64:1231-1237, 1993.
- 17) Yonemitsu M., Watanabe H., Minakuchi S., Ono Y., Ohnishi M., Kubota K., Sasaki Y.: Epidemiological study on distribution of plaque, calculus and gingivitis among Nigerian people. J. Stomatol. Soc., Jpn. 60:565-570, 1993 (in Japanese).
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- 20) Tominaga Y.: Investigation of microbial flora in the acute phase of adult periodontitis -Detection of periodontopathic bacteria using indirect immunofluorescence technique and culture method before and after administration of slow release minocycline-. J. Jpn. Soc. Periodontol. 36:1-17, 1993 (in Japanese).
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- 22) Aoki A., Ando Y., Watanabe H., Ishikawa I.: In vitro studies on laser scaling of subgingival calculus with an Erbium:YAG laser. J. Periodontol. 65:1097-1106, 1994.
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- 42) Nakabayashi N, Fujii B, Horiuchi H, Ishikawa I, Suda H, Yamamoto T, Saimi Y, Toida T. Occlusion of dental tubules with reactive polymer emulsion - In vitro evaluation with SEM observation of treated surfaces-. *Japan J Conserve Dent* 38(6):1538-1548, 1995 (in Japanese)
- 43) Hagiwara S, Umeda M, Tominaga Y, Takamatsu N, Yoshida N. Subgingival distribution of periodontopathic bacteria in periodontitic patients and susceptibility of these bacteria to minocycline-HCl. *J. Stomatol. Soc., Jpn.* 62(4):23-33, 1995 (in Japanese).
- 44) Ando Y, Aoki A, Watanabe H, Ishikawa I. Bactericidal effect of erbium YAG laser on periodontopathic bacteria. *Lasers Surg Med* 19:190-200, 1996.
- 45) Boutsi E, Koseki T, Nishihara T, Ishikawa I. Characterization of the immunodominant antigens of *Porphyromonas gingivalis* 381 in high-responder patients. *Oral Microbiol Immunol* 11:236-241,1996.
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