

ANNUAL PUBLICATIONS

1st Department of Orthodontics

1993.1.-2000.3.

I. Staffs and Students (April, 1999)

Professor	K. Soma	
Associate Professor	J. Iida	
Lecturer	T. Ishida	Y. Fujita
Research Associate	H. Warita	K. Otsubo
	M. Hisano	N. Shinozaki
	Y. Matsumoto	
Dental Resident	M. Hase	N. Ishii
	H. Yamasawa	A. Tanaka
	S. Furuta	K. Shibasaki
	Z. Kanno	E. Fukuyama
	A. Oka	K. Yoshizaki
Technical Staff	S. Katoh	
Administrative Staff	T. Nakamura	Y. Shimizu
Graduate Student	T. Magara	M. J. Shinchi
	S. Kaneko	T. Muramoto
	K. Amemiya	Y. Shima
	Y. Seki	Y. Hayashi
	N. Matsubara	T. Kohno
	P. Santiwong	M. Teramoto
	S. Yomoda	T. Ogawa
	H. Kirimoto	T. Kameyama
	E. S. Suhr	F. Nastion
	J. H. Yu	W. T. Moe
	H. Watarai	H. Nakanishi
	M. Esashika	S. Suzuki
	S. Sringkarnboriboon	P. Santilakanawong
	J. Zeredo	
Dental Research Student	H. Miura	Y. Tahara
	J. Iino	N. Takahashi
	K. Sakamoto	K. Fujita
	M. Niino	T. Itoh
	J. Shimada	Y. Takatsu
	S. Kuroda	M. Shibata
	K. Kasai	S. Ota
	K. Hioki	T. Saito
	J. Ando	A. Natori
	P. Cholasueksa	B. Buranastidporn
	K. Iramaneerat	S. K. Yoo
	C. R. Chung	J. Kawabe
	M. Ohe	I. Kobayashi
	H. Sasaki	N. Haibara
	T. Takigawa	S. Matsuoka
Affiliate Dentist	T. Shimokawa (Research Associate of Functional Anatomy)	
Clinical Training Staff	T. Fujimori	S. Narita

II. Educational Outline of Graduate Course

The main subjects of this department are as follows.

To conduct researches on normal growth, development and function of teeth, periodontal tissues, maxillofacial configuration and the associated muscular soft tissues and to study the etiology, improvement and prevention of malocclusion and morphological abnormality derived from disharmony of the above structures. As for postgraduate education, during the 3-year course for research students or the 4-year course for graduate students, we aim at training clinicians or researchers who profoundly learn special knowledge and required technique of orthodontics in our postgraduate curricula.

III. Research Subjects

- (1) Biomechanical study of occlusion
- (2) Studies on biological response and functional adaptation followed by orthodontic stimulation
- (3) Studies on changes with aging concerning dento-maxillo-craniofacial morphology and function
- (4) Studies on interrelation between cranio-maxillofacial complex and whole body
- (5) Development of mechanics and materials for orthodontic treatment

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

A. Original Articles

- 1) Fujisaki T., Kato Y., Fujita Y., Sakamoto M., Kamata S., Igarashi K., Hiyama S., Kuroda T.: TMJ Dysfunction Questionnaire on Patients with Malocclusion (in Japanese). J. Jpn. Soc. TMJ 5(2): 64-77, 1993.
- 2) ○ Fujita Y.: Osteopontin mRNA Expression Remodeling Alveolar Bone Incident to Tooth Movement -Visualized by In Situ Hybridization- (in Japanese). J. Stomatol. Soc., Jpn. 60 (1): 183-198, 1993.
- 3) Hisano M., Kuroki T., Soma K.: A Method for Evaluation of the Occlusal Condition by Using the Distance between Opposing Teeth in Vertical Dimension -At Occlusal Contact and the Near Occlusal Contact- (in Japanese). J. Jpn. Orthod. Soc. 52 (1): 73-78, 1993.
- 4) ○ Hotta K.: Effects of Added Monomers and Phosphoric Acid Concentration on Adhesion of Self-curing Acrylic Resin to Enamel (in Japanese). J. Jpn. Orthod. Soc. 52 (3): 360-371, 1993.
- 5) Iida J., Warita H., Kurihara S., Soma K.: Initial Changes in Leukocyte Movement in Mechanically Compressed Post-Capillary Venule. Microcirculation Annual 9: 155-156, 1993.
- 6) Ishida T., Soma K.: Stress Analysis of the Space between the Upper and Lower First Molars During the Final Stage of Occlusion (in Japanese). J. Jpn. Orthod. Soc. 52 (2): 161-172, 1993.
- 7) Kaewsuriyathumrong C., Soma K.: Stress of Tooth and PDL Structure Created by Bite Force. Bull. Tokyo Med. Dent. Univ. 40 (4): 217-232, 1993.
- 8) Noda T., Okamoto Y., Hamanaka H.: Frictional Property of Orthodontic Wires -Evaluation by Static Frictional Coefficients- (in Japanese). J. Jpn. Orthod. Soc. 52 (2): 154-160, 1993.
- 9) Noda T., Soma K.: Functional Property of Orthodontic Wires -Friction among Ligature Wire, Bracket and Arch Wire (in Japanese). J. Jpn. Orthod. Soc. 52 (5): 502-508, 1993.
- 10) Ohe M., Ishida T., Soma K.: A System of Analyzing Stress Distribution in Teeth and Periodontium Induced by Orthodontic Appliances (in Japanese). J. Jpn. Orthod. Soc. 52 (4): 450-457, 1993.
- 11) Otsubo K., Yoneyama T., Hamanaka H., Soma K.: Influence of Temperature on the Force Level of a Super-elastic Ni-Ti Alloy Wire under Strain (in Japanese). J. J. Dent. Mater. 12(4): 521-527, 1993.
- 12) Saito Y., Hotta K., Soma K., Nakabayashi N.: Effects of Phosphoric Acid Concentration on Adhesion to Polished Human Enamel Surface (in Japanese). J. J. Dent. Mater. 12 (3): 418-423, 1993.
- 13) Takemura N., Fujita Y., Toda K.: Functional Evaluation of Orbicularis Oris Muscle Using Evoked EMG Method (in Japanese). Proceeding of Japanese Society of Stomatognathic Function 11:11-16, 1993.
- 14) Iida J., Warita H., Soma K.: Early Orthodontic Treatment of Identical Twins and Long-term Observation: The Effects of Class III Activator (in Japanese). J. Jpn. Orthod. Soc. 53 (5): 572-583, 1994.
- 15) ○ Kaewsuriyathumrong C.: Finite Element Analysis of Occlusal Conditions -Extraction and Non-extraction Cases-. J. Jpn. Orthod. Soc. 53 (2): 169-182, 1994.
- 16) ○ Kamata S.: Reflex Response of Temporal Muscle Induced by Mechanical Stimulation to Periodontal Ligament -In the Lateral Jaw Movement During Mastication- (in Japanese). J. Stomatol. Soc., Jpn. 61(1): 82-97, 1994.
- 17) Kamata S., Fujita Y., Toda K., Soma K.: Excitatory Reflex Response of Contralateral Temporal Muscle Evoked by Mechanical Stimulation at Human Maxillary Canine (in Japanese). J. Jpn. Stomatognath. Funct. 1(1): 127-132, 1994.
- 18) Kurihara K., Fujita Y., Soma K.: An Investigation into the Relationship between Temporomandibular Disorders and Mandibular Lateral Displacement in Patients with Malocclusion -Sampling of Orthodontic Patients- (in Japanese). J. Jpn. Soc. TMJ 6(3):

- 196-207, 1994.
- 19) ○ Kuroda K.: Studies on Silver Soldering of Super-elastic TiNi Alloy Wire to Co-Cr Alloy Wire (in Japanese). J. Stomatol. Soc., Jpn. 61(4): 542-563, 1994..
 - 20) Kuwahara K., Yoneyama T., Hamanaka H., Soma K.: The Fixation of an Additive Attached to Super-elastic Ti-Ni Alloy Wire (in Japanese). J. J. Dent. Mater. 13 (5): 483-488, 1994.
 - 21) ○ Matsumoto Y.: Morphological and Functional Properties Odontoclasts on Dentine Resorption (in Japanese). J. Stomatol. Soc., Jpn. 61(1): 123-143, 1994.
 - 22) Otsubo K.: Changes in Force Level of Ti-Ni Alloy Wires in the Experimental Oral Environment (in Japanese). J. Jpn. Orthod. Soc. 53 (5): 555-561, 1994.
 - 23) ○ Otsubo K.: Development of the Super-elastic Ti-Ni Alloy Wire Appropriate to the Oral Environment (in Japanese). J. Jpn. Orthod. Soc. 53 (6): 641-650, 1994.
 - 24) Tsuchiya T., Matsuoka S., Iida J.: Maxillary Protrusion Cases with Fused Teeth (in Japanese). J. Tokyo Orthod. Soc. 4(1): 28-39, 1994.
 - 25) ○ Abreu H.: Dental Attrition of Mayan Tzutujil Children -A Study Based on Longitudinal Materials-. Bull. Tokyo Med. and Dent. Univ. 42 (1): 31-50, 1995.
 - 26) ○ Domon S.: Observation of Alveolar Bone Remodeling Accompanied with Tooth Movement by In Situ Hybridization - Expression of Type I Collagen and Bone Sialoprotein mRNAs- (in Japanese). J. Stomatol. Soc., Jpn. 62 (1): 94-105, 1995.
 - 27) Kamata S., Fujita Y., Soma K.: Reflex Response of Temporal Muscle Induced by Mechanical Stimulation of Human Canine - Comparison of Normal Overjet and Cross Bite Responses- (in Japanese). J. Jpn. Soc. Stomatognath. Funct. 1 (2): 281-287, 1995.
 - 28) Shinozaki N., Hase M., Ishida T., Soma K.: Improvement of a Flexible Sensor with Pressure Sensitive Rubber -In Respect of the Conformation to the Occlusal Surface of the Teeth- (in Japanese). J. Jpn. Soc. Stomatognath. Funct. 2 (1): 57-63, 1995.
 - 29) Takigawa T., Matsuoka S., Iida J., Soma K.: Jaw Position, Head Position, Body Posture: Development of an Integrated System of Examination, Part I (in Japanese). J. Stomatol. Soc., Jpn. 62(3): 441-450, 1995.
 - 30) Toda K., Ishii N., Nakamura Y.: An in Vitro Jaw-nerve Preparation for Oral Sensory Study in the Rat. J. Neurosci. Methods 61: 85-90, 1995.
 - 31) Tsuchiya T., Matsumoto Y., Kurihara S.: The Fluorescent Simultaneous Azo Dye Technique for Demonstration of Tartrate - Resistant Acid Phosphatase (TRAP) Activity in Osteoclast-like Multinucleate Cells. Journal of Bone and Mineral Metabolism 13(2): 71-76, 1995.
 - 32) Warita H., Iida J., Soma K.: Leukocyte Movement under Continuous and Intermittent Microvascular Compression. European Journal of Orthodontics 17: 460-461, 1995.
 - 33) Haibara N., Ishida T., Soma K.: Transmission and Absorption of Occlusal Impact Force: Using the Finite Element Non-linear Dynamic Analysis (in Japanese). J. Oromax. Biomech. 2 (2): 20-26, 1996.
 - 34) Ishida T., Haibara N., Shinozaki N., Soma K.: Transmission and Absorption of Occlusal Impact Force -A Dynamic Simulation of PDL- (in Japanese). J. Oromax. Biomech. 2b (1): 29-30, 1996.
 - 35) Kurihara K., Fujita Y., Soma K.: An Investigation into the Relationship between Lateral Displacement of the Mandible and the Symptomatic Side (in Japanese). J. Jpn. Soc. TMJ 8 (2): 36-46, 1996.
 - 36) Miura H., Otsubo K., Kuroda K., Noda T., Soma K., Yoneyama T., Hamanaka H.: Damping Capacity of Super-elastic Ti-Ni Alloy Orthodontic Rectangular Wires (in Japanese). J. J. Dent. Mater. 15(6): 559-567, 1996.
 - 37) ○ Noda T.: Tooth Movement by Biomechanical Technique in Orthodontic Treatment (in Japanese). J. Stomatol. Soc., Jpn. 63 (1): 222-230, 1996.
 - 38) Sasaki H., Fujita Y., Toda K., Soma K.: Lip Sensation Related to Stomatognathic Function in Man -Effects of Surface Anesthesia of Lips on Jaw Movements in Chewing- (in Japanese). J. Jpn. Soc. Stomatognath. Funct. 2(2): 83-90, 1996.
 - 39) Sasaki H., Fujita Y., Toda K., Soma K.: Lip Sensibility Related to Stomatognathic Function in Man Part 2 -Effect of Superficial Anesthesia of the Lips on the Activity of Masseter and Digastric Muscles during Chewing- (in Japanese). J. Jpn. Soc. Stomatognath. Funct. 3(1): 1-10, 1996.
 - 40) Warita H., Iida J., Yamaguchi S., Matsumoto Y., Fujita Y., Domon S., Tsuchiya T., Otsubo K., Soma K.: A Study on Experimental Tooth Movement with Ti-Ni Alloy Orthodontic Wires: Comparison between Light Continuous Force and Light Dissipating Force. J. Jpn. Orthod. Soc. 55 (6): 515-527, 1996.
 - 41) Hase M., Soma K.: The Relationship between Occlusal Condition and Patterns of Masticatory Movement during the Final Stage of Occlusion (in Japanese). J. Jpn. Soc. Stomatognath. Funct. 3(2):163-166, 1997.
 - 42) ○ Hase M.: Biomechanical Relationship between Intercusp Relation and Masticatory Movement during Final

- Stage of Occlusion -Time-course Efficiency of Food Destruction (in Japanese). J. Stomatol. Soc., Jpn. 64(1): 145-155, 1997.
- 43) Hisano M., Soma K.: A Mechanical Consideration for the Shaping of the Mandibular Path during the Occlusal Phase of Mastication (in Japanese). J. Jpn. Soc. Stomatognath. Funct. 3(2): 115-119, 1997.
 - 44) Hotta K., Soma K., Nakabayashi N.: The Factor which Affected the Adhesion to Enamel (in Japanese). Adhesive Dentistry 15 (2): 127-133, 1997.
 - 45) ○ Iida Y.: Functional Properties of Receptors for Glutamate and GABA in Cultured Trigeminal Ganglion Neurons (in Japanese). J. Stomatol. Soc., Jpn. 64(1): 121-132, 1997.
 - 46) Ishida T., Amemiya K., Iida J., Soma K.: Stress Distribution on Microvasculature under Compression -Using Computational Fluid Dynamic Analysis- (in Japanese). J Oromax. Biomech. 3 (1): 1-2, 1997.
 - 47) ○ Ishii N.: Response Properties of Rat Periodontal Mechanoreceptors in an in Vitro Preparation (in Japanese). J. Stomatol. Soc., Jpn. 64(1): 85-96, 1997.
 - 48) Nakagawa N., Iida J., Warita H., Soma K.: Microvascular Reactions to Intermittent Mechanical Compression in Old Hamsters. J. Jpn. Orthod. Soc. 56 (6): 367-371, 1997.
 - 49) Noda T., Kawaguchi T., Soma K.: Activator Treatment of Angle Class II, Division 2 Malocclusion (in Japanese). J. Jpn. Orthod. Soc. 56 (4): 245-254, 1997.
 - 50) Shinozaki N., Ishida T., Soma K.: The Approach of the Momentary Measurement of the Bite Force at Near Final Occlusal Position (in Japanese). J. Jpn. Orthod. Soc. 56 (3): 180-184, 1997.
 - 51) Toda K., Ishii N., Nakamura Y.: Characteristics of Mucosal Nociceptors in the Rat Oral Cavity; an in Vitro Study. Neurosci. Lett. 228: 95-98, 1997.
 - 52) Warita H., Iida J., N. Hayami, S. Kaneko, K. Soma: Leukocyte-endothelium Interaction in a Post-capillary Venule under Mechanical Compression -Effect of Aging-. Microcirculation annual 13: 111-112, 1997.
 - 53) Chantawiboonchai P., Warita H., Ohya K., Soma K.: Confocal Laser Scanning Microscopic Observation on 3-D Distribution of Oxytalan Fibres in Mouse Periodontal Ligament. Arch. Oral Biol. 43 (10): 811-817, 1998.
 - 54) ○ Furuta S.: Induction of Rhythmical Activity in Digastric Muscles in an in Vitro Brainstem Preparation from Adult Mice (in Japanese). J. Stomatol. Soc., Jpn. 65 (1): 74-83, 1998.
 - 55) Nakazawa N., Fujita Y., Hasegawa S., Soma K.: Displacement of the Maxillary First Molar in Malocclusion during Clenching. Orthodontic Waves. 57 (3): 195-198, 1998.
 - 56) ○ Narita S.: Pharmacological Study on Metabotropic Glutamate Receptors on Trigeminal Neurons (in Japanese). J. Stomatol. Soc., Jpn. 65 (2): 233-240, 1998.
 - 57) Negishi A., Yoshimasu H., Sakamoto K., Shioiri S., Amagasa T., Enomoto S.: Methicillin-Resistant Staphylococcus Aureus Carriers in Infants with Cleft of Lip and Palate (in Japanese). Jpn. J. Oral Maxillofac. Surg., 44 (6): 565-570, 1998.
 - 58) Shimokawa T., Akita K., Soma K., Sato T.: Innervation Analysis of the Small Muscle Bundles Attached to the Temporalis: Truly New Muscles or Merely Derivatives of the Temporalis? Surg. Radiol. Anat. 20 (5): 329-334, 1998.
 - 59) ○ Tanaka A., Iida J., Soma K.: Effect of Hypofunction on the Microvasculature in the Periodontal Ligament of the Rat Molar. Orthodontic Waves. 57 (3): 180-188, 1998.
 - 60) Toda K., Seki Y., Ishii N., Soma K., Nakamura Y.: Tooth Pulpal Nociceptors in the Rat Lower Incisor, An In vitro Study. Pain Research. 13: 57-63, 1998.
 - 61) ○ Yamasawa H.: Electromyographic Power Spectral Analysis of Sternocleidomastoid Muscle during Sustained Voluntary Clenching (in Japanese). J. Stomatol. Soc., Jpn. 65(1):84-92, 1998.
 - 62) ○ Chantawiboonchai P., Iida J., Soma K.: Effects of Aging on Oxytalan Fibre in Mouse Periodontal Ligament. J. Med. Dent. Sci. 46(2): 75-82, 1999.
 - 63) Domon S., Shimokawa H., Matsumoto Y., Yamaguchi S., Soma K.: In situ Hybridization for Matrix Metalloproteinase-1 and Cathepsin K in Rat Root-Resorbing Tissue Induced by Tooth movement. Arch. Oral Biol. 44(11): 907-915, 1999.
 - 64) ○ Fukuyama E., Fujita Y., Soma K.: Changes in jaw-jerk on Different Levels of Jaw Closure and Teeth-Clenching in Humans. J. Oral Rehabilitation, 2000. (in press)
 - 65) Hase M., Ishida T., Soma K.: Simulation of the Process of Food Destruction during the Final Occlusal Stage Using Finite Element Non-linear Dynamic Analysis. Journal of Computer Methods in Biomechanics and Biomedical Engineering. 2 (1): 45-48, 1999.

- 66) Hisano M., Soma K.: Energy-based Evaluation of Occlusion. *J. Oral Rehabilitation* 26 (1): 25-32, 1999.
- 67) Hisano M., Soma K.: Energy-based Re-evaluation of Angle's Class I Molar Relationship. *J. Oral Rehabilitation* 26(10): 830-835, 1999.
- 68) ○ Kanno Z., Shibata T., Kasugai S., Ohya K., Soma K.: Intracellular Calcium Response in Cultured Bone Cells under Mechanical Stress. *Orthodontic Waves*. 58 (6): 389-395, 1999.
- 69) Matsuoka S., Iida J., Soma K.: Relationship between Mandibular Displacement and Body Sway in Subjects with Malocclusion. *Orthodontic Waves*. 58(3): 208-213, 1999.
- 70) ○ Piyapattamin T., Takano Y., Eto K., Soma K.: Morphological Changes in Periodontal Mechanoreceptors of Mouse Maxillary Incisors after the Experimental Induction of Anterior Crossbite: A Light and Electron Microscopic Observation Using Immunohistochemistry for PGP 9.5. *European Journal of Orthodontics* 21 (1): 15-29, 1999.
- 71) ○ Shimokawa T., Akita K., Soma K., Sato T.: An Anatomical Study of the Muscles Innervated by the Masseteric Nerve. *Okajimas Folia Anat. Jpn.* 75 (6): 271-280, 1999.
- 72) Shibata S., Kaneko S., Yanagishita M., Yamashita Y.: Histochemical Localization of Hyaluronan and Versican in the Rat Molar Dental Pulp. *Arch. Oral Biol.* 44 (4): 373-376, 1999.
- 73) Tanaka A., Iida J., Soma K.: Long Term Observation on the Microvasculature in the Periodontal Ligament during Occlusal Hypofunction. *Microcirculation annual* 15: 81-82, 1999.
- 74) Fujita Y., Soma K.: Orthodontic Approach to Malocclusion with Condylar Resorption -A Case Resulting in Termination of Condylar Resorption by Improving Unstable Occlusion- *J. Jpn. Soc. TMJ* 11 (3): 182-185, 1999.
- 75) Yoneyama T., Otsubo K., Shima Y., Tahara Y., Soma K., Sorathes N., Phetcharakuot V., Okamoto Y., Doi H., Kobayashi E., Hamanaka H.: Super-elasticity in Torsional Properties and Phase Transformation of Orthodontic Ti-Ni Alloy Rectangular Archwires (in Japanese). *The Journal of the Japanese Society for Dental Materials and Devices* 18 (6): 463-471, 1999.
- 76) ○ Amemiya K., Hisano M., Ishida T., Soma K.: Relationship between Flow of Bolus and Occlusal Condition during Mastication -Computer Simulation Based on the Measurement of Characteristics of Bolus-. *J. Oral Rehabilitation* 2000 (in press)
- 77) ○ Kaneko S., Ohashi K., Soma K., Yanagishita M.: Occlusal Hypofunction Causes Changes of Proteoglycan Content in the Rat Periodontal Ligament. *Journal of Periodontal Research*. 2000 (in press)
- 78) ○ Muramoto T., Takano Y., Soma K.: Time-related Changes in Periodontal Mechanoreceptors in Rat Molars After Loss of Occlusal Stimuli. *Archives of Histology and Cytology*. 2000 (in press)
- 79) Shibasaki K., Fujita Y., Yamasawa H., Fukuyama E., Soma K.: Development of a New Device for Recording Condylar Head Movement. *J. Oral Rehabilitation*. 27 (3): 245-249, 2000.
- 80) ○ Shinchi M. J., Soma K., Nakabayashi N.: The effect of phosphoric acid concentration on resin tag length and bond strength of photo-cured resin to acid-etched enamel. *Dental Materials*. 16: 324-329, 2000.
- 81) Tobiume Y., Otsubo K., Soma K., Yoneyama T., Hamanaka H.: Improvement in the Load Changeability of Super-Elastic Ti-Ni Alloy Orthodontic Closed Coil Spring by the Two-step Heat Treatment (in Japanese). *The Journal of the Japanese Society for Dental Materials and Devices*. 19 (2): 170-178, 2000.

B. Books

- 1) Soma K., Hasegawa M., Iida J., Takigawa T.: Relation between Jaw Position and Body Posture - An Approach from the Point of View of Orthodontic Treatment- (in Japanese). *The Research Institute of Posture* 1995.
- 2) Miura F., Soma K., Kuroki T.: An Atlas Dento-craniofacial Morphology of Peruvian and Mexican Indians. *An Atlas of Dento-craniofacial Morphology of Peruvian and Mexican Indians*. Koku Hoken Kyokai, Tokyo, pp1-52, 1995.
- 3) Iida J., Warita H., Nakagawa N., Soma K.: White Blood Cell Movement Changes in Post-capillary Venule during Intermittent or Continuous Compressions. In: *Biological Mechanisms of Tooth Movement and Craniofacial Adaptation*. Davidovitch Z. and Norton L. eds., Harvard Society for the Advancement of Orthodontics, Alabama, pp.189-194, 1996.
- 4) Soma K.: A Manual of Orthodontics (in Japanese). Fukuhara T. and Kuroda T. eds., Nanzando, Tokyo, 1996.
- 5) Warita H., Iida J., Nakagawa N., Soma K.: Effects of Aging on White Blood Cell Movement in a Compressed Post-capillary Venule. In: *Biological Mechanisms of Tooth Movement and Craniofacial Adaptation*. Davidovitch Z. and Norton L. eds., Harvard Society for the Advancement of Orthodontics, Alabama, pp183-187, 1996.
- 6) Soma K., Noda T.: Side Effects and Safety of Dental Materials (in Japanese). In: *Dental Materials*. Gakken-shoin, Tokyo, pp.121-127, 1997.

- 7) Soma K.: Calculative Mechanics of Occlusion (in Japanese). In: Year Book of Orthodontics for Clinicians '97. Ito G., Hanada K. eds., Quintessence, Tokyo, pp.31-35, 1997.
- 8) Soma K., Kuroda K., Hotta K., Iida J., Noda T., F. Watari F., Imai T., Hamanaka H., Nakabayashi N., Nishimura F.: Development of New Dental Materials by Combining Substances with Varying Properties. Abstracts of Research Forum Supported by 1995 JADS Grant Dental Japan p.33, p.163, 1997.
- 9) K. Soma: Malocclusion (in Japanese). In: Contemporary Treatment Guideline. Igaku-shoin. p.887, 1998.
- 10) Ishida T., Haibara N., Soma K.: Finite Element Model for Transmission and Absorption of Occlusal Impact Force. In: Computer Method for Biomechanics & Biomedical Engineering - 2. Middleton J., Jones M. L. and Pande G. N., eds., Gordon and Breach Science Publishers, Singapore, pp.629-635, 1998.
- 11) Warita H., Nowroozi N., Darendeliev M. A., Zernik J. H.: The Alveolar Bone- Unique Developmental Growth, Remodeling, and Aging Mechanisms and their Relevance in Orthodontics. In: Biological Mechanisms of Tooth Eruption, and Replacement by Implants. Davidovitch Z. and Mah J., eds., Harvard Society for the Advancement of Orthodontics, Alabama, pp.279-284, 1998.
- 12) Fujita Y., Soma K.: Orthodontic Treatment for Malocclusion with Temporomandibular Arthrosis. In: An Introduction to Temporomandibular Joint Diseases for Dental Clinicians (in Japanese). Ishibashi K., Inoue H. and Kameyama Y. Eds., Nagasue Inc., Tokyo, pp.135-140, 1998.
- 13) Soma K.: Reconstruction of Occlusion (from an Orthodontic Standpoint). In: Prosthodontics in Health Science -The Aim in the 21st Century- (in Japanese). Japan Prosthodontic Society, Tokyo, pp.80-83, 1999.
- 14) Otsubo K., Soma K.: Improvement of a Ti-Ni alloy wire and its Clinical Applications (in Japanese). In: Year Book of Orthodontics for Clinicians '99. Ito G. and Hanada K. eds., Quintessence, Tokyo, pp.28-36, 1999.
- 15) Otsubo K., Soma K.: New Improved Super-Elastic Orthodontic Wire (ISW) (in Japanese). The Nippon Dental Review. 686: 5-8, 1999.
- 16) Toda K., Nasution F., Seki Y., Ishii N., Ogawa T., Soma K., Nakamura Y.: Subtypes of oral mucosal nociceptors, an in vitro study in rats. In: Neurobiology of Mastication. Nakamura Y. and Sessle B.J. eds., pp.189-200, 1999.
- 17) Toda K., Nasution F., Seki Y., Ishii N., Ogawa T., Kumei Y., Kimoto M.: Responses of oral mucosal nociceptors to bitter solutions in an in vitro rat jaw-nerve preparation. In: Primary Nociceptive Neuron. Kress M, Reeh P.W. and Vyklícky L. eds., p.111, 1999.
- 18) Yamasawa H., Soma K.: Sternocleidomastoid Muscle Fatigue During Sustained Voluntary Contraction. Correlation Between Oral Care and Systemic Health (in Japanese). In: Occlusal Conditions Inducing Abnormalities in Other Organs. Kobayashi S. ed., Koku Hoken Kyokai, Tokyo, pp.139-147, 2000.
- 19) Soma K., Kino K.: Relationship Between the Anterior Disk Displacement of the TMJ and Abnormalities in Dental Interdigitation. Correlation Between Oral Care and Systemic Health (in Japanese). In: Occlusal Conditions Inducing Abnormalities in Other Organs. Kobayashi S. ed., Koku Hoken Kyokai, Tokyo, pp.156-157, 2000.
- 20) Fujita Y., Soma K.: Orthodontic Approach to Patients with Anterior Disk Displacement of Temporomandibular Joint and with Symptoms Around the Area of Head and Neck. Correlation Between Oral Care & Systemic Health (in Japanese). In: Occlusal Conditions Inducing Abnormalities in Other Organs. Kobayashi S. ed., Koku Hoken Kyokai, Tokyo, pp.178-193, 2000.
- 21) Fujita Y.: Orthodontic Treatment for Malocclusion with Craniomandibular Disorders. An Introduction to Advanced Orthodontic Treatment (in Japanese). In: Dental Technique Series. Soma K. ed., Koku Hoken Kyokai, Tokyo, 2000. (in press)

C. Review Articles

- 1) Soma K.: An Overview of Orthodontics (in Japanese). Plastic & Reconstructive Surgery. The Japanese Journal of Plastic & Reconstructive Surgery 36 (1): 29-41, 1993.
- 2) Soma K.: Distribution of Occlusal Stress on Mandible, Dentition and Teeth (in Japanese). J. Stomatol. Soc., Jpn. 60 (1): 1-9, 1993.
- 3) Fujita Y., Kuroda T.: The Orthodontic Approach to Temporomandibular Joint Disorder (in Japanese). J. Jpn. Soc. TMJ 5 (2): 41-54, 1993.
- 4) Ohe M., Ishida T., Soma K.: A System of Analysing Stress Distribution in Teeth and Periodontium Induced by Orthodontic Appliances. Dentistry in Japan 31: 67-70, 1994.
- 5) Soma K.: Measurement of the Occlusal Surface Morphology -Approach to Analysis of Occlusal Stress- (in Japanese). Journal of the Japanese Association for Dental Science 13: 76-81, 1994.
- 6) Soma K.: Orthodontics and Occlusion (in Japanese). J. Jpn. Orthod. Soc. 53 (3): 397-405, 1994.
- 7) Narita S., Sasama M., Miyata Y.: Neuropeptide-Update Neuropeptide Related Substance. Clinical Neuroscience 12 (3): 246-247, 1994.

- 8) Soma K., Ishida T.: Computer Simulation in the Field of Orthodontics (in Japanese). The Quintessence 14 (4): 175-184, 1995.
- 9) Soma K., Otsubo K., Kuroda K.: Metallic Materials Possessing Functional Properties -A Newly Developed Super-elastic Ti-Ni Alloy Orthodontic Wire- (in Japanese). The Journal of the Japan Dental Association 48 (9): 17-27, 1995.
- 10) Soma K.: Occlusal Condition in Orthodontic Dentistry (in Japanese). The Quintessence 16 (1): 179-189, 1997.
- 11) Soma K., Kuroda K., Hotta K., Iida J., Noda T., Watari F., Imai T., Hamanaka H., Nakabayashi N., Nishimura F.: Development of New Dental Materials by Combining Substances with Varying Properties (in Japanese). Journal of the Japanese Association for Dental Science 16:46-60, 1997.
- 12) Warita H.: Why do we use the light continuous force? (in Japanese). The Quintessence 16 (4): 108-113, 1997.
- 13) Soma K., Hase M., Shinozaki N., Hisano M.: Graph Bio Imaging of "Occlusion" -For Producing Prosthetics Functioning in vivo- (in Japanese). Series 6 Dynamic State of the Teeth. Shika Gikou 27 (6): 651-661, 1999.
- 14) Soma K.: Orthodontics of Simplicity and Efficiency! 1 (in Japanese). Nisshi-kouhou, No.1184 1999.
- 15) Soma K.: Orthodontics of Simplicity and Efficiency! 2 (in Japanese). Nisshi-kouhou, No.1185 1999.
- 16) Soma K.: Orthodontics of Simplicity and Efficiency! 3 (in Japanese). Nisshi-kouhou, No.1186 2000.