Research Achievements 2011
Contents

Hiroshima University Faculty of Dentistry, Hiroshima University Hospital,
Graduate School of Biomedical Sciences

Programs for Biomedical Research, Division of Molecular Medical Science
  - Department of Biomaterials Science
  - Department of Dental and Medical Biochemistry
  - Department of Oral Biology
  - Department of Bacteriology

Programs for Biomedical Research, Division of Integrated Medical Science
  - Department of Oral Physiology
  - Department of Dental Pharmacology

Programs for Biomedical Research, Division of Frontier Medical Science
  - Department of Oral and Maxillofacial Pathobiology
  - Department of Periodontal Medicine, and Department of Preventive and Restorative Dentistry (Periodontics and Endodontics)
  - Department of Molecular Oral Medicine & Maxillofacial Surgery (Oral and Maxillofacial Surgery)

Programs for Applied Biomedicine, Division of Medical Intelligence and Informatics
  - Department of Mucosal Immunology
  - Department of Oral and Maxillofacial Radiology, and Department of Oral & Maxillofacial Surgery and Oral Medicine (Oral and Maxillofacial Radiology)

Programs for Applied Biomedicine, Division of Clinical Medical Science
  - Department of Oral Growth and Developmental Biology
  - Department of Dental Anesthesiology, and Department of Oral & Maxillofacial Surgery and Oral Medicine (Dental Anesthesiology)

Programs for Applied Biomedicine, Division of Cervico-Gnathostomatology
  - Department of Dental Science for Health Promotion, and Department of Preventive and Restorative Dentistry (Operative and Conservative Dentistry)
  - Department of Oral and Maxillofacial Surgery, and Department of Oral & Maxillofacial Surgery and Oral Medicine (Oral and Maxillofacial Reconstructive Surgery)
  - Department of Advanced Prosthodontics, and Department of Preventive and Restorative Dentistry (Implants and Prosthodontics)
  - Department of Advanced Prosthodontics, and Department of Preventive and...
Restorative Dentistry (Prosthetic Dentistry)
- Department of Orthodontics and Craniofacial Developmental Biology, and Department of Oral Health and Development (Orthodontics)
- Department of Pediatric Dentistry, and Department of Oral Health and Development (Pediatric Dentistry)
- Department of International Collaboration Development for Dentistry

- Master’s Program for Oral Health Sciences, Division of Oral Health Sciences
  - Department of Public Oral Health
  - Department of Maxillofacial Functional Development
  - Department of Oral Health Management
  - Department of Anatomy and Functional Restorations
  - Department of Medical System and Biomaterial Engineering
  - Department of Oral Biology & Engineering

- Central Research Laboratory
- Department of Advanced General Dentistry, General Dentistry
- Department of Oral Health and Development, Preventive Dentistry
- Department of Oral Health and Development, Special Care Dentistry
- Central Clinical Sections, Special Dental Clinic Section
- Central Clinical Sections, Center of Oral Clinical Examination
- Central Clinical Sections, Dental Technicians Section
- Central Clinical Sections, Dental Hygiene Section
- Dental Clinic
- Dental Medical Information Section
Programs for Biomedical Research, Division of Molecular Medical Science
(Department of Biomaterials Science)

(1) Staffs and Students

Professor: Koichi Kato
Assistant Professor: Yuji Nomura, Isao Hirata, Ryo Nishikiori
Researcher: Jiang Wu
Undergraduate Student: Takayuki Ooto, Sho Nishimoto, Mizuki Takahashi, Kotaro Watanabe, Chiharu Kubota, Hisanobu Kamio

(2) Main Research Activities

1: Biodevices for producing cells used in stem cell-based regenerative medicine.
2: Biochips for the functional analyses of proteins and stem cells.
3: Molecular design of tissue engineering scaffolds.
4: Surface modification of dental implants.
5: Development of novel disinfectants for dental materials.

(3) Research Achievements

A) Original Papers

5: Detection of synthetic RGDS(PO_3H_2)PA peptide adsorption using a titanium surface plasmon resonance biosensor: Abe Y., Hiasa K., Hirata I., Okazaki Y., Nogami K., Mizumachi W., Yoshida

B) Review


C) Publications


D) Presentation at Scientific Meeting


Designing of biomaterials and biodevices for controlling stem cell functions: Kato K.: Seminar at the Institute for Materials Chemistry and Engineering, Kyushu University (Hakata), 2011.


Meeting of Hiroshima University Dental Society (Hiroshima), 2011.


(4) Status of Receiving Grants-in-Aid for Scientific Research, etc.


2: Japan Science and Technology Agency, Adaptable and Seamless Technology Transfer Program through Target-driven R&D, Feasibility Stage: Biochips for the quality control of mesenchymal stem cells. No. AS231Z04602F  1,700,000 JPY

3: Ministry of Education, Culture, Sports, Science and Technology, Grant-in-Aid for Young Scientists (B): Hirata I.: Effect of self-assembled monolayers on the growth and differentiation of mesenchymal stem cells in a serum-free medium: No. 23792282  1,900,000JPY

4: Grant for Exploratory Research, Hiroshima University: Nishikiori R.: Identification of prospective surface markers of mesenchymal stem cells using an on-chip cell sorting method.  500,000 JPY

(5) Academic Awards, etc.


2: Wu J.: Poster award at the 4th Hiroshima Conference (October 9, 2011)

(6) Patents

Programs for Biomedical Research,  
Division of Molecular Medical Science  
(Department of Dental and Medical Biochemistry)

(1) Staff and Students

Professor: Yukio Kato
Associate Professor: Mitsuhide Noshiro
Research Associate: Takeshi Kawamoto, Katsumi Fujimoto, Kazuko Kitayama
International Student: Tania Saskianti, Veronica Ronald
Secretary: Misano Kuramoto

(2) Main Research Activities

1) Basic and clinical aspects of mesenchymal stem cells
2) Differentiation of chondrocytes
3) Molecular clocks

We cloned novel bHLH transcription factors (Dec1 and Dec2), which play roles in differentiation of mesenchymal stem cells (MSC) into chondrocytes, adipocytes, myoblasts and osteoblasts. Furthermore, Dec1 and 2 are involved in core feed back loops of the transcriptional and translational control in molecular clock systems (Honda-S et al. Nature, 2002). In addition, we developed the super-expansion method for MSC and found many molecular markers for MSC.

(3) Research Achievements

A) Original Papers (including Case Reports)
4: PERIOD1 (PER1) has anti-apoptotic effects, and PER3 has pro-apoptotic effects during cisplatin


B) Review

C) Publications

D) Other Publications

E) Presentation at Scientific Meeting


5 : Serum-Free Cultures for Human Mesenchymal Stem Cells using Defined Culture Surfaces.: Yukio Kato: 1st Meeting of Surabaya Regenerative Medicine and Stem Cell Centre (SRMSC), 2nd
Meeting of Indonesia Association of Tissue Bank (IATB), SYMPOSIUM, Surabaya, Indonesia, Sep.22-23, 2011.

(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

(5) Academic Awards, etc.

(6) Patents

Return to Contents
Basic Life Sciences
Department of Bacteriology

(1) Faculty members and students

Professor : Motoyuki Sugai
Assistant Professor : Fuminori Kato, Shizuo Kayama, Junzo Hisatsune
Co-Researcher : Keiko Tsuruta (Oral Health Care Major)
                 Ikue Hayashi (Faculty of Density)
                 Keita Iori (Tokyo University of Agriculture and Technology)
                 (Aug 15 - Sep 4)
Visiting Research Scholar : Dr. Pratiwi Soesilawati
Graduate Student : Shuntarou Kouda OD (D7) (From Dept. Urology) Shima Morioka D6, Kanao
                    Kobayashi D4 (From Dept. Urology), Wataru Shimizu D4 (From Dept. Surgery 1),
                    Norifumi Shigemoto D3 (From Dept. Surgery 1), Itsugun Ko D3 (From Pediatric Dentistry),
                    Ryuichi Kuwabara D3, Taro Kojima D2, Yuko Iwamoto D2 (From Pediatric Dentistry),
                    Nobuyuki Tatsukawa D1 (From Pediatric Dentistry), Yoshie Harino D1 (Clinical
                    Laboratory, Hiroshima City Asa Hospital), Shrestha Looniva D1, Kazuhisa Koizumi M2
                    (Pharmacy, Kimura Eye & Int. Med. Hospital)
Research student : Yu Liansheng (doctoral course enrollment next year)

(2) Main Research Interests
1: Research on peptidoglycan hydrolases
2: Drug resistance mechanism of nosocomial pathogens and molecular epidemiology
3: Research on bacterial toxins modifying signal transduction
4: Functional study of virulence factors of periodontopathogenic bacteria
5: Comparative genomic analysis of staphylococci
6: Gene expression analysis of S. aureus

(3) Research Accomplishments

A) Original Papers (including Case Reports)

1. Rapid detection of bla_{IMP-6} by Amplification Refractory Mutation System. Shizuo Kayama,
   Norifumi Shigemoto, Ryuichi Kuwahara, Makoto Onodera, Michiya Yokozaki, Hiroki Ohge,


9. *Staphylococcus pseudintermedius* exfoliative toxin selectively digests canine desmoglein 1 and causes intraepidermal splitting resembling canine impetigo. Keita Iyor, Keiko Futagawa-Saito, Junzo Hisatsune, Masahiko Yamamoto, Maiko Sekiguchi, Kaori Ide, Won Geun, Thierry Olivry,


C) Books

D) Other Publications

E) Presentation at Scientific Meeting

1. 黄色ブドウ球菌表皮剥脱毒素の新規転写調節因子の解析. 加藤文紀、平川英樹、田代康介、久原哲、菅井基行. 第 5 回 ゲノム微生物学会 仙台 （地震の為、開催されず）

2. 膿痂疹/SSSS をおこす S. aureus pETB の薬剤耐性遺伝子獲得. 久恒順三、平川英樹、大島健志郎、服部正平、桑原隆一、加藤文紀、菅井基行. 第 5 回 ゲノム微生物学会 仙台 （地震の為、開催されず）

3. MDRP が保有する bla IMP-1 plasmid の解析. 鹿山信男、小林加直、大毛宏喜、平川英樹、大島健志郎、服部正平、菅井基行. 第 5 回 ゲノム微生物学会 仙台 （地震の為、開催されず）
4. 伝染性膿瘍/SSSS 由来の ETB 産生黄色ブドウ球菌のアルベカシン耐性化. 久恒順三，桑原隆一，菅井基行. 第 85 回日本感染症学会総会 4/21 東京

5. イミペネム感受性メロペネム耐性 Klebsiella pneumoniae (ISMRK)の出現. 繁本憲文，桑原隆一，鹿山鎮男，清水亘，小野寺一，横崎典哉，大毛宏喜，菅井基行. 第 85 回日本感染症学会総会 4/21

6. イミペネム感受性メロペネム耐性 Klebsiella pneumoniae (ISMRK)クローンの出現とその検出. 鹿山鎮男，繁本憲文，桑原隆一，清水亘，小野寺一，横崎典哉，大毛宏喜，菅井基行. 第 59 回日本化学療法学会総会 6/24 札幌


8. 広島県におけるイミペネム感受性メロペネム耐性 Klebsiella pneumoniae (ISMRK)の出現. 鹿山鎮男，繁本憲文，桑原隆一，清水亘，小野寺一，横崎典哉，大毛宏喜，菅井基行. 感染症科第 28 回中国地区インフェクションフォーラム 7/23 岡山


10. Sequence analysis of the blaIMP-1 plasmid harbored by an MDRP in Hiroshima. Shizuo Kayama, Kanao Kobayashi, Hiroki Ohge, Hideki Hirakawa, Kenshiro Oshima, Masahira Hattori, Motoyuki Sugai. IUMS Sep 9, Sapporo


12. Skip, a Trojan horse of Staphylococcus aureus causing severe impetigo/SSSS. Junzo Hisatsune, Teruaki Murakami, Ikue Hayashi, Fuminori Kato, Motoyuki Sugai. IUMS Sep 10, Sapporo

13. CdtC-induced processing of membrane-bound CdtA is a crucial step in complex formation of CDT holotoxin. Keiko Tsuruda, Motoyuki Sugai IUMS Sep 10, Sapporo

14. 黄色ブドウ球菌表皮剥脱毒素の新規転写調節因子 SptA. 加藤文紀，菅井基行. 第 56 回日本
15. 腫瘍をもたらす S. aureus が保有する pETB の薬剤耐性遺伝子獲得. 久恒順三、平川英樹、大島健志朗、服部正平、桑原隆一、加藤文紀、菅井基行. 第 56 回日本ブドウ球菌研究会. 9/23 高知

16. 「広島県における耐性菌動向－耐性緑膿菌と ESBL 産生菌を中心に－」. 菅井基行. 感染症専門医および感染対策チームの育成のための講演会 9/23 高知市

17. 広島県内の一医療施設で継続的に検出された blalmp-1 陽性緑膿菌の分子疫学解析. 播野俊江、鹿山鎭男、菅井基行. 第 81 回日本感染症学会西日本地方会 10/7 小倉

18. イミペネ感受性メロペネム耐性 Klebsiella pneumoniae 感染により重篤な経過をたどった一例. 繁本憲文、石野岳志、井門謙太郎、鹿山鎭男、桑原隆一、小野寺一、横崎典哉、大毛宏喜、菅井基行. 第 81 回日本感染症学会西日本地方会 10/7 小倉

19. 耐性菌検査法 -ESBL 産生菌を中心に－. 桑原隆一. 第 22 回日本臨床微生物学会 ワークショップ 3 (第 12 回 MICRoBE 学術研究会) 10/22 岡山

20. Imipenem 感受性 Meropenem 耐性 Klebsiella pneumoniae (ISMRK) が保有する多剤耐性プラスミド pKPI-6. 繁本憲文、鹿山鎭男、桑原隆一、清水亘、久恒順三、加藤文紀、平川英樹、大島健志朗、服部正平、大毛宏喜、菅井基行. 第 64 回日本細菌学会中国四国支部総会 10/22 岡山

21. 眼科専門病院で分離された臨床分離 Staphylococcus aureus の解析. 小泉一久、鹿山鎭男、菅井基行. 第 64 回日本細菌学会中国四国支部総会 10/23 岡山

22. 広島県における ESBL 産生菌の分子疫学解析（第 2 期調査). 桑原隆一、鹿山鎭男、菅井基行. 第 59 回日本化学療法学会西日本地方会 11/24 奈良市

23. 広島県におけるイミペネ感受性メロペネム耐性 Klebsiella pneumoniae (ISMRK) クローンの動向. 繁本憲文、鹿山鎭男、桑原隆一、清水亘、小野寺一、横崎典哉、大毛宏喜、菅井基行. 第 59 回日本化学療法学会西日本地方会 11/25 奈良市

24. Drug-resistant Pseudomonas aeruginosa urinary isolates: clonal dissemination of multidrug-resistant Pseudomonas aeruginosa with the blalmp-1 gene cassette in Hiroshima. Kanao

25. 広島県における耐性菌動向ー耐性緑膿菌とESBL産生菌を中心にー. 菅井基行. 第40回薬剤耐性菌研究会 12/1 群馬県渋川市

26. 耐性菌の分子疫学-広島地区における取り組み-. 菅井基行、大毛宏喜. 第24回国日本外科感染症学会総合学術集会 シンポジウム3「耐性菌はどうする?」 12/2 三重県志摩市

27. 眼科専門病院で分離された臨床分離Staphylococcus aureusの解析. 小泉一久、鹿山鎭男、菅井基行. 第30広島感染症研究会 12/3 広島市

28. リサーチ検討会学術報告「広島県下の耐性菌サーベイランス報告」. 菅井基行. 第30広島感染症研究会 12/3 広島市

29. Staphylococcus aureusの新規表層タンパク質Skipの機能解析. 久恒順三、村上輝明、小島太郎、遠川仲行、加藤文紀、菅井基行. 第34回国日本分子生物学会年会ポスター発表 12/14 横浜

30. SptB is a novel transcriptional regulator of exfoliative toxin A in Staphylococcus aureus. Fuminori Kato, Hideki Hirakawa, Kosuke Tashiro, Satoru Kuhara, Motoyuki Sugai. 第34回国日本分子生物学会年会ポスター発表(12/15) & 一般講演ノミネート(12/16) 4T7pII Functions of Molecules and Complexes/分子・複合体の機能 Transcription/転写 横浜

F) Invited speakers, Symposiumist and others

1. 問題となっている院内感染症の原因微生物. 桑原隆一. 第3回広島地区感染対策指導者セミナー 3/12

2. 「とびひ」の細菌学ー系統解析からのアプローチー. 菅井基行. 第64回日本細菌学会九州支部総会 特別講演-I 8/26 門司 (Invited)

3. Skip, a versatile cell wall protein of S. aureus causing severe skin diseases. Motoyuki Sugai. Symposium: Staphylo-Streptococcus Diseases IUMS Sep 9, Sapporo (Organizer and speaker)

4. 「広島県における耐性菌動向ー耐性緑膿菌とESBL産生菌を中心にー」. 菅井基行. 感染症専門医および感染対策チームの育成のための講演会 9/23 高知市総合あんしんセンター
5. 「ワークショップ『耐性菌検査』－ESBL 産生菌を中心に－」． 桑原隆一． 第 12 回 MICRoBE 学術研究会 広島 10/22

6. 耐性菌検査法 －ESBL 産生菌を中心に－． 桑原隆一． 第 22 回日本臨床微生物学会 サイエンス・ワークショップ 3 （第 12 回 MICRoBE 学術研究会）10/22 岡山市


8. 広島県における耐性菌動向－耐性緑膿菌と ESBL 産生菌を中心に－．菅井基行．第 40 回薬剤耐性菌研究会 伊香保温泉森秋館会議室 12/1 群馬県渋川市

9. 耐性菌の分子疫学－広島地区における取り組み－．菅井基行、大毛宏喜．第 24 回日本外科感染症学会総会学術集会 シンポジウム 3 「耐性菌をどうする?」 12/2 三重県志摩市

10. リサーチ検討会学術報告「広島県下の耐性菌サーベイランス報告」．菅井基行．第 30 回広島感染症研究会 12/3 広島市

11. *Skip* 産生黄色ブドウ球菌の性状解析．久恒順三、小島太郎、村上輝明、加藤文紀、菅井基行．厚生科学研究天谷班 第 1 回班会議 慶応大学 6/8, 2011

12. 黄色ブドウ球菌の病原性発現機構に関与するゲノム情報基盤．加藤文紀、久恒順三、菅井基行．乳酸菌研究会 6/17

13. FLG-KO マウスに対する黄色ブドウ球菌の付着・固着性の検討．小島太郎、久恒順三、菅井基行．厚生科学研究天谷班 第 2 回班会議 慶応大学 11/16, 2011

14. *Staphylococcus pseudintermedius* が産生する表皮剥脱毒素はイヌ皮膚においてデスモグレイン 1 を標的とする．伊従慶太、久恒順三、川島慶子、山本昌彦、川上哲司、柴田早苗、村山信雄、関口利光、永田雅彦、前野愛子、井手香織、大島健志郎、服部正平、福安正昭．第 151 回日本獣医学会 3/30-4/1 東京

15. 中国地区で分離された多剤耐性緑膿菌に対する抗菌薬併用効果の検討（中国インフェクションフォーラム）．桑原正雄、草野展、清水英治、土井正男、菅井基行、公文裕巳．第 85 回

17. The RND efflux system MexMN of *Pseudomonas aeruginosa* extrudes Pseudomonas quinolone signal (PQS) and 4-hydroxy-2-heptylquinoline-N-oxide (HQNO), interfering with growth of *Staphylococcus aureus*. Shu Minagawa, Keisuke Shinno, Yukako Kitakaze, Kenji Fujii, Takashi Kitayama, Fuminori Kato, Jun Okuda, Motoyuki Sugai, Naomasa Gotoh IUMS Sep 10, Sapporo

(4) Research grants.
2 : Grant-in-Aid for Scientific Research for Young Investigator B from the Ministry of Education, Science, Sports and Culture of Japan : Kato, F.
3 : Grant-in-Aid for Scientific Research for Young Investigator B from the Ministry of Education, Science, Sports and Culture of Japan : Hisatsune, J.
4 : Grant-in-Aid for Scientific Research from the Ministry of Health and Labor of Japan : Sugai, M. (share holder) :
5 : lactobacillus study group scholarship : Sugai, M

(5) Awards
1. 4th Hiroshima Conference on Education and Science in Dentistry. Poster Award, Mao Tanaka, Hiroshima, 10/10, 2011

2. 第64回日本細菌学会中国四国支部総会若手優秀発表受賞．繁本憲文．10/22 岡山（2011）

(6) Patents
Programs for Biomedical Research, 
Division of Integrated Medical Science 
(Department of Oral Physiology)

(1) Staffs and Students

Professor : SUGITA, Makoto
Associate Professor : HIRONO, Chikara
Research Associate : KITAGAWA, Michinori (April ~)
Research Assistant : YAMAMOTO, Kuniyo
Graduate Students : YAMAMOTO, Kuniyo (April ~)

(2) Main Research Activities

1 : Molecular physiological study on function of ion channels and ion transporters
2 : The neuronal mechanisms underlying the taste-evoked behavioral and emotional responses
3 : The role of cell communication in proliferation and differentiation of the oral epithelium and salivary glands
4 : Study on the system mechanisms of mastication and swallowing

(3) Research Achievements

A) Original Papers (including Case Reports)

B) Review


C) Publications

D) Other publication

E) Presentation at Scientific Meeting

1 : Suppression of phenylephrine-induced Cl⁻ secretion by dobutamine in rat submandibular acinar cells:

2: The genetic tracing to functionally define the gustatory neurons at a single cell resolution: Sugita M., Yamamoto K., Hirono C., Shiba Y.: The 53th Annual Meeting of Japanese Association for Oral Biology (Gifu), 2011.


4: Effects of sympathetic β1 and β2 agonists on parasympathetically induced Ca2+ increase in rat submandibular acinar cells: Hirono C., Sugita M., Shiba Y.: The 63th Annual Meeting of Chugoku and Shikoku Division in Physiological Society of Japan (Hiroshima), 2011.


(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

1: Grant-in-Aid for Scientific Research (C): Sugita M., The neuronal mechanisms underlying the taste recognition revealed by genetic tracing. 21592362. ¥1,000,000.

2: Grant-in-Aid for Young Scientists (B): Kitagawa M., Analysis of the role of transcription factor Tead1 in the differentiation of mouse embryonic stem cells into retinal pigment epithelium and proliferation of the differentiated cells. 22791669. ¥1,300,000.

(5) Academic Awards, etc.

(6) Patents
Programs for Biomedical Research,  
Division of Integrated Medical Science  
(Department of Dental Pharmacology)

(1) Staff and Students

Professor: Takashi Kanematsu  
Associate professor: Katsuya Morita  
Assistant professor: Tomoya Kitayama, Kae Harada  
Research Associate: Satoshi Asano  
Graduate student: Toshiya Okumura, Hiroto Tanaka  
Undergraduate student (Advanced Dental Research course): Ryuichi Tsuruta (6th), Yuya Ogawa (5-6th), Nami Kikushige (5-6th), Nozomi Hinada (5-6th), Kousuke Yokobayashi (4th), Tomohiro Mukai (4th), Seiya Hayashi (4th), Eri Ikeda (4th), Sakura Yamada (4th).

(2) Main Research Activities

1 : Studies on the molecular mechanisms of GABA receptor signaling in the central nervous system  
2 : Studies on the molecular mechanisms controlling insulin secretion  
3 : Studies on the regulatory mechanisms of food intake and energy metabolism  
4 : Studies on the roles of a new autophagy-related molecule in autophagy pathway  
5 : Physiological and pathophysiological roles of neurotransmitter transporters and nucleoside transporters.  
6 : Studies on the mechanisms for neuropathic pain and the development of novel medicaments.

(3) Research Achievements

A) Original Papers

3 : A case report of prosthodontic reconstruction using dental implants for the edentulous patient with

B) Reviews


C) Publications

D) Other Publications


E) Presentation at Scientific Meeting

6: Mechanisms of analgesic effect of glycine transporter inhibitors for neuropathic pain in mice:
F) Special lectures in academic meeting

1: Trafficking of GABA<sub>A</sub> Receptors is Modulated by Their Phosphoregulation via a Novel GABA<sub>A</sub> Receptor Binding Protein PRIP: Kanematsu T. NeuroTalk 2011, (Dalian, China), 2011.


3: Discovery of a novel gene involved in lipolysis: Kanematsu T., Kasumi Festival in Hiroshima University (Hiroshima), 2011. (Public Lecture)

(4) Grants


2: Grant-in-Aid for Scientific Research (B): Morita K., Development of mechanism-based novel medicaments to pain in advanced cancer. Project number 22390349. Amount 5,070,000.


4: Grant-in-Aid for Young Scientific (B): Kitayama T., Mechanism of saliva secretion via novel molecule of trafficking of granules regulator. Project number 22791789. Amount 1,690,000.

(5) Academic Awards

1: Toshiya Okumura: Poster Award, 3rd International workshop on BioDental Education & Research, 2011.

2: Toshiya Okumura: Best Presentation Award, the 44th Ordinary Meeting of Hiroshima University Dental society, 2011.

3: Toshiya Okumura: Poster Award, 4th Hiroshima Conference on Education and Science in Dentistry, 2011.

(6) Patents
Program for Biomedical Research,  
Division of Frontier Medical Science  
(Department of Oral and Maxillofacial Pathobiology)

(1) Staffs and Students

Professor : Takashi Takata  
Associate Professor : Mutsumi Miyauchi  
Assistant Professor : Yasusei Kudo  
Research Associate : Toshihiro Inubushi  
Visiting Researcher : Chea Chanbora, Istiati Soeprcibadi, Nurina Febriyanti Ayuningtyas, Pasutha Thunyak  
Secretary: Yuko Masuda  
Graduate Student : Hisako Furusho (D4), Phuong Thao Nyugen (D4), Intan Suraiya Merican Binti Aljunid Merican (D3), Takaaki Tsunematsu (D2), Mariko Obayashi (D2), Ajiravudh Subarnhesaj (D1), Mariko Okada (M1) 

(2) Main Research Activities

1 : Molecular pathological study on proliferation and development of oral squamous cell carcinoma  
2 : Experimental pathological study on the mechanism of regeneration of periodontal tissues  
3 : Experimental pathological study on the mechanism of destruction of periodontal tissues  
4 : Study on the criteria of diagnosis and cellular differentiation of odontogenic tumors and salivary gland tumors 

(3) Research Achievements 

A) Original Papers


B) Original Papers (Case Reports)


C) Original Papers (Review)


D) Books

E) Special lectures in academic meetings
1. Application of liposomal lactoferrin to prevention and treatment of periodontal diseases.: Takata T.: The 2nd joint scientific meeting in dentistry (Surabaya, Indonesia), December 3-4, 2011.
5. Salivary gland tumors, Head and neck pathology.: Takata T.: The 7th Asia Pacific International Academy of Pathology Congress (Taipei), May 23, 2011.

F) Presentation at International Scientific Meeting
3. Inhibitory effect of bLF on LPS-induced crosstalk among TLR pathways in osteoblasts. Okada M,
2011


G) Presentation at Domestic Scientific Meeting


5. Identification of microRNA-203 as an inhibitor of invasion in oral cancer. Obayashi M, Kudo Y,


H) Case Reports at Scientific Meeting

1. Tumor of the parotid (Myoepithelial carcinoma, invasive, ex pleomorphic adenoma).: Ogawa I, Takata T, Mizobuchi K, Morito T.: The 57th Meeting of Hiroshima Pathological Conference (Hiroshima), December 10, 2011.


12. A case of myoepithelial carcinoma ex pleomorphic adenoma of the palate.: Fukui Y., Toratani S.,


(4) Status of Receiving Grants-in Aid for Scientific Research, etc.


7. Grants-in-Aid for Scientific Research (Scientific Research (C)) Continuance: Mutsumi Miyauchi: Study on the development of novel therapy for bone disease targeting γ-GTP.

8. Donated fund from Ito ultrasound Ltd., Continuance: Takashi Takata: Study on the influence of ultrasonic irradiation on periodontal tissue.


11. Donated fund from Mitsubishi-Mihara Hospital, Continuance: Takashi Takata: Study on diagnosis for oral disease.

12. Donated fund for Hiroshima Prefecture tumor registration business, Continuance: Takashi Takata
(5) Academic Awards, etc.


3. Takaaki Tsunematsu: Encouragement Award of Hiroshima University Faculty of Dentistry Alumni Association, May 14, 2011 (Hiroshima).

4. Hisako Furusho: The 43rd meeting of Hiroshima University Dental Society, Encouragement Award, June 11, 2011 (Hiroshima).

5. Fumitaka Obayashi (6th grade Student): The 43rd meeting of Hiroshima University Dental Society, Encouragement Award, June 11, 2011 (Hiroshima).

6. Chiaki Morimoto (6th grade Student): The 43rd meeting of Hiroshima University Dental Society, Special Award from President of Hiroshima University Dental Society, June 11, 2011 (Hiroshima).

7. Azuma Kosai (5th grade Student): Japan dental association organized (DENTSPLY International sponsored) Student Clinician Research Program (SCRP), invitational tournament for represent Japan, First prize 19th August, 2011, (Tokyo.)


9. Toshihiro Inubushi: 59th The 59th Annual Meeting of Japanese Association for Dental Research (JADR) Young Researcher’s Award, October8, 2011 (Hiroshima).

10. Hisako Furusho: The 59th Annual Meeting of Japanese Association for Dental Research (JADR) Young Researcher’s Award, October8, 2011 (Hiroshima).
Program for Department of Periodontal Medicine, Division of Frontier Medical Science and Department of Preventive and Restorative Dentistry (Periodontics and Endodontics)

(1) Staffs and Students

Professor: Hidemi Kurihara
Associate Professor: Hiroyuki Kawaguchi
Associate Professor, Lecture: Hideki Shiba, Takamune Hino (additional post of Hiroshima University Dental Clinic Director)
Assistant Professor: Naohiko Hasegawa, Noriyoshi Mizuno, Tsuyoshi Fujita, Yuushi Uchida, Katsuhiro Takeda, Tomoyuki Iwata, Kazuhisa Ohara, Shinji Matsuda
Resident: Yasuko Kitamoto, Fumino Ogawa
Graduate Student: Yoriko Iwasaki, Yoshie Niitani, Takeshi Ueda, Tomoko Hatakeyama, Naoko Katagiri, Mizuho Kittaka, Akihiro Konishi, Tsuyoshi Miyagawa, Kenji Wada, Kabir MD Ahamedul, Irma Josefine Savitri, Shu Ishida, Haruka Imai, Yusuke Obinata, Eri Kaneda, Takako Fujita, Ryoichi Yagi, Khung Rathvisal, Daisuke Ito, Kei Kashiwai, Masahiro Yamakawa, Tetsuya Yoshimoto

(2) Main Research Activities

1: Immunological study on the onset of periodontics
2: Study on periodontal tissue regeneration using bone marrow mesenchymal stem cells
3: Study on periodontal tissue regeneration using neurotrophines
4: Study on physiological function and differentiation of the cells derived from periodontal ligament or dental pulp
5: Study on pathogenicity of periodontopathogenic bacteria
6: Study on interaction between periodontopathogenic bacteria and host cells
7: Clinical study on endodontal-periodontal therapy
8: Study on interaction between stress and periodontics

(3) Research Achievements

A) Original Papers (including Case Reports)

1. Proteome analysis of proteins related to aggressive periodontitis combined with neutrophil


3. Susceptibility test and systemic administration of antibiotics for the treatment of alveolar abscess infected by 


B) Review

C) Publications

D) Other Publications

1. Toward the Realization of Biologic Endodontics : H. Shiba, H. Kurihara ; Supplemental issue of the Quintessence Let’s change clinical treatment best by ENDO Quintessence publication Co., 128-137


E) Presentation at Scientific Meeting


2. BDNF induces migration of endothelial cells: S. Matsuda, T. Fujita, H. Shiba, H. Kurihara; the 89th General Session & Exhibition of the International Association for Dental Research (San Diego), March 2011

3. Irsogladine Maleate Regulates Gingival Epithelial Barrier Functions In Inflammatory Condition: T.
4. Inflammatory reaction of S100 protein in human gingival epithelial cells: Y. Uchida, K. Ohara, T. Fujita, H. Shiba, H. Kawaguchi, H. Kurihara; the 89th General Session & Exhibition of the International Association for Dental Research (San Diego), March 2011

5. Usefulness of stem cell-produced extracellular matrix as a scaffold: M. Kittaka, H. Shiba, K. Hayashida, K. Takeda, T. Iwata, T. Fujita, H. Kawaguchi, H. Kurihara; the 89th General Session & Exhibition of the International Association for Dental Research (San Diego), March 2011

6. A case report of localized aggressive periodontitis improved by early phase of periodontal regenerative therapy: K. Takeda, H. Shiba, H. Kawaguchi, H. Kurihara; The 54th spring meeting of the Japanese society of Periodontology (Fukuoka), May 2011

7. The antimicrobial peptide LL37 promotes the expression of VEGF in human periodontal ligament cell: M. Kittaka, H. Shiba, K. Ouhara, K. Takeda, T. Fujita, T. Fujita, H. Kawaguchi, H. Kurihara; The 54th spring meeting of the Japanese society of Periodontology (Fukuoka), May 2011

8. The involvement of SMAD2 of apoptosis in gingival epithelium: T. Fujita, K. Ouhara, H. Shiba, H. Kawaguchi, H. Kurihara; The 54th spring meeting of the Japanese society of Periodontology (Fukuoka), May 2011


14. The antimicrobial peptide LL37 promotes the expression of VEGF in human periodontal ligament
2011

18. Adhesion of mesenchymal stem cells to root surface of teeth in vitro: K. Wada, Y. Uchida, T. Ueda, H. Kawaguchi, H. Kurihara; The 54th spring meeting of the Japanese society of Periodontology (Shimonoseki), September 2011
19. Immunohistochemical study of periodontal tissue regenerative process by BDNF: A. Konishi, K. Takeda, H. Shiba, T. Ueda, T. Fujita, S. Matsuda, H. Kawaguchi, H. Kurihara; The 54th spring meeting of the Japanese society of Periodontology (Shimonoseki), September 2011
20. The ability of osteogenic differentiation of mesenchymal stem cell isolated from dog alveolar bone: T. Ueda, H. Kawaguchi, Y. Uchida, K. Takeda, K. Wada, T. Fujita, H. Kurihara; The 54th autumn meeting of the Japanese society of Periodontology (Shimonoseki) September 2011
26. The establishment of the method to make marrow mesenchyma stem cells adhere to the tooth root surface : K. Wada, Y. Uchida, T. Ueda, H. Kawaguchi, H. Kurihara : The 97th Hiroshima dental society (Hiroshima), November 2011

27. Isolation and osteogenic differentiation of jaw bone marrow derived mesenchymal stem cells in beagle dogs: T. Ueda, H. Kawaguchi, K. Wada, K. Takeda, T. Fujita, Y. Uchida, H. Kurihara; 44th meeting of Hiroshima University Faculty of Dentistry (Hiroshima) November 2011


29. The reality of dental metal allergy - From the result of patch test in Dental Departments, Hiroshima University Hospital- : M. Kitagawa, T. Ando, T. Shintani, I. Ogawa, H. Kurihara ; 44th meeting of Hiroshima University Faculty of Dentistry (Hiroshima) November 2011

F) Special lectures in academic meetings

1. Consideration for biological treatment: Hidemi Kurihara; Numazu-shi dental association lecture (Shizuoka), January 2011

2. How much can periodontal tissue be regenerated?: Hidemi Kurihara ; The 10th Congress of the Japanese Society for Regenerative Medicine (Tokyo), March 2011

3. Fact and limit for cell cryopreservation — Consideration for the standard of cell cryopreservation from medical care to food — : Hidemi Kurihara ; Hiroshima University international industry-university co-operation and regional alliances center international symposium (Tokyo), March 2011

4. Hidemi Kurihara; Seminar of the department of Collagenosis (Hiroshima), May 2011

5. Hidemi Kurihara; ADS-ROC annual meeting (Taiwan), August 2011

6. Dental Professionals Improve QOL of HIV-positive Persons: H. Shiba; The 54th Autumn Meeting of the Japanese Society of Periodontology (Shimonoseki), September 2011

7. Development of a newly medical device for periodontal tissue regeneration using brain-derived neurotrophic factor (BDNF) / hyaluronic acid complex: Katsuhiro Takeda; a luncheon seminar of the 54th autumn meeting of the Japanese society of Periodontology (Shimonoseki), September 2011

8. Irsogladine maleate regulates neutrophil migration and E-cadherin expression in gingival epithelium stimulated by Aggregatibacter actinomycetemcomitans. T. Fujita. The 53rd Annual meeting of Japanese association for oral biology (Gifu), October 2011

9. Embodiment of the concept called the biological endodontic treatment: Hidemi Kurihara ; Education lecture of Japan Association of Dental Traumatology (Osaka), October 2011
10. Dentistry and infection control: Hidemi Kurihara; Recurrent education for Dental hygienist (Hiroshima), October 2011
11. Vision for new periodontal regenerative therapy: Hidemi Kurihara; 29th annual meeting of Japan Academy of Clinical periodontology Special lecture (Hiroshima), October 2011
12. Dentistry and infection control: Hidemi Kurihara; Ehime dental association medical care security workshop (Matsuyama), November 2011
13. Development of new methods for periodontal regenerative therapy: Hidemi Kurihara; Japan–China Medical interchange meeting memorial event (China), November 2011

(4) Status of Receiving Grants-in Aid for Scientific Research.

1. Grants-in aid for scientific research: Hidemi Kurihara: #21390557
2. Grants-in aid for scientific research: Hiroyuki Kawaguchi: #22592313
3. Grants-in aid for scientific research: Katsuhiro Takeda: #22791929
4. Grants-in aid for scientific research: Kazuhisa Ouhara: #22792085
5. Grants-in aid for scientific research: Tsuyoshi Fujita: #22792087
6. Grants-in aid for scientific research: Yuushi Uchida: #22792088
7. Grants-in aid for scientific research: Hidemi Kurihara: #23592923
8. Grants-in aid for scientific research: Noriyoshi Mizuno #23593061
9. Grants-in aid for scientific research: Hidemi Kurihara: #23659978
10. Grants-in aid for scientific research: Tomoyuki Iwata: #23792478
11. Grants-in aid for scientific research: Yoriko Iwataki: #23932002
12. Japanese Society of Periodontology Encouragement research grants – in aid for Seeds foster young researcher (the year of 2011): Kazuhisa Ouhara; Basic research for development of examination of periodontal disease sensitivity focused on microRNA expression

(5) Award.

Katsuhiro Takeda
Best Poster Presentation Award of the 54th spring meeting of the Japanese society of Periodontology (Fukuoka): A case report of localized aggressive periodontitis improved by early phase of periodontal regenerative therapy

Tsuyoshi Fujita
Japanese Society of Conservative Dentistry prize for encouragement (2011):
Irsogladine maleate regulates neutrophil migration and E-cadherin expression in gingival epithelium stimulated by Aggregatibacter actinomycetemcomitans; Biochemical Pharmacology. 79:1496-1505, 2010.

Programs for Applied Biomedicine, Division of Medical Intelligence and Informatics (Department of Mucosal Immunology)

(1) Staffs

Professor: Ichiro Takahashi
Associate Professor: Kei Tobiume
Graduate Student: Hirokazu Toubou

(2) Main Research Activities

1: Immunobiological analysis of the mucosal immune system
2: Molecular analysis of host defense against oxidized stress

(3) Research Achievements

A) Text book (in japanese)

1: Takahashi, I. The intraepithelial lymphocytes. In “Encyclopedia of Food immunity & Allergy”
   (Edited by Japanese Society of Food Immunology) pp.66-67, Asakura Shoten, Tokyo, 2011.

B) Review (in japanese)


C) Original papers

1: Hatano H, Shigeishi H, Kudo Y, Higashikawa K, Tobiume K, Takata T, Kamata N. Overexpression of
   receptor for hyaluronan-mediated motility (RHAMM) in MC3T3-E1 cells induces proliferation and
   differentiation through phosphorylation of ERK1/2. J Bone Miner Metab. PMID: 21947782, 2011.

2: Hatano H, Shigeishi H, Kudo Y, Higashikawa K, Tobiume K, Takata T, Kamata N. RHAMM/ERK
   interaction induces proliferative activities of cementifying fibroma cells through a mechanism based
D) Presentation at Scientific Meeting


(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

1. Grant for the Co-laboratory Research from the Institute of Medical Science, The University of Tokyo: Takahashi, I: Molecular and cellular mechanism for the induction and maintenance of mucosal memory T cells. (No. 2011-3-305) ¥ 1, 000, 000.
2. Grant for the Co-laboratory Research entitled “Molecular and cellular analysis of mucosal immune responses to food derived immunomodulators” from the Kobayashi Pharmaceutical Company. ¥ 1, 500, 000.

(5) Patents.

“The gut-resident commensal bacteria derived polypeptide and the method of its production” (#2011-033867) Hiroshima University, The University of Tokyo, Tokyo Medical and Dental University, and Kitasato University. February 18, 2011.

Return to Contents
Programs for Applied Biomedicine, Division of Medical Intelligence and Informatics (Department of Oral and Maxillofacial Radiology)
Department of Oral and Maxillofacial Surgery and Oral Medicine (Oral and Maxillofacial Radiology)

(1) Staff and Students

Professor : Keiji Tanimoto
Associate Professor : Minoru Fujita
Assistant Professor : Yoshikazu Suei, Takashi Nakamoto
Research Associate : Toshikazu Nagasaki, Masahiko Ohtsuka, Masahiko Sawajiri, Masaru Konishi
Graduate Student : Masaru Konishi, Yukimi Yasuhara, Mitsuko Shimizu, Kiyohito Ota, Md Mahmud Uz Zaman, Satsuki Minamitani, Atia Hossain, Kimio Okada, Keiji Harada

(2) Main Research Activities

1: Radiographic classification of simple bone cyst of the jaw
2: Radiographic study of osteomyelitis of the jaw
3: Study of radiation dosimetry in X-ray region for diagnosis
4: Study on the videofluoroscopic examination of swallowing
5: Radiation effects of heavy ion particles on bone metabolism.

(3) Research Achievements

A) Original Papers

3: Experience of using a filmless system in dental practice at Hiroshima University Hospital, a former University Dental Hospital: Ohtsuka M., Nakamoto T., Konishi M., Yamane Y.,
C) Publications


E) Presentation at Scientific Meeting


5: Contrast agents used in the videofluoroscopic swallowing study: Konishi M. Nagasaki T. Yasuhara Y. Tanimoto K.: 18th International Congress of Dento-maxillofacial Radiology (Hiroshima), 2011

6: Visualization of Rice Swallowing: Konishi M. Nagasaki T. Yasuhara Y. Tanimoto K.: 2th Joint Scientific meeting in Dentistry (Surabaya), 2011


8: The swallowing dynamic state of the freeze infusion of foods: Tanimoto K., Nagasaki T.,


(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

1: Grant-in-aid for scientific research from the Japan Society for the Promotion of Science: Sawajiri M. : Radioprotective assay on bone metabolism with Japanese Medaka (Oryzias latipes). (No. 23592765) ¥1,800,000

2: Grant-in-aid for scientific research from the Japan Society for the Promotion of Science: Nagasaki T : The assessment of the oropharyngeal functions for determination of liquid concentration in dysphagic patients. (No. 2359284952) ¥150,000

(6) Patents

Programs for Applied Biomedicine,  
Division of Clinical Medical Science  
(Department of Oral Growth and Developmental Biology)

(1) Staffs and Students

Professor: Norihiko Maeda  
Associate Professor: Yuji Yoshiko  
Research Associate: Tomoko Minamizaki, Hirotaka Yoshioka  
Graduate Student: Aya Nishikiori  
Yukiko Konishi (Pediatric Dentistry)  
Undergraduate Student: Maya Mohri, Aoi Nozu, Yasumasa Irie

(2) Main Research Activities

1: Bone and tooth mineralization  
2: Phosphate-regulating molecules

(3) Research Achievements

A) Original Papers (including Case Reports)


E) Presentation at Scientific Meeting

2: 可溶化型 Klotho は FGF23 を介して新生骨石灰化を調節する : 南崎朋子, 吉子裕二, 小西有希子, 吉岡広陽, 香西克之, 前田憲彦: 第 88 回日本生理学会大会/第 116


(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

1: JST A-STEP Feasibility Study (Search Type): Yuji Yoshiko, Analysis of (p)ASARM as a bone-vascular calcification-related molecule in a mouse model. ¥1,700,000.

2: Research Grant (Ono pharmaceutical): Yuji Yoshiko, Molecular basis of mineralization in bone and other tissues. ¥3,000,000.

3: Grants-in-Aid for Scientific Research (C): Yuji Yoshiko, A study on “A FGF23-soluble Klotho System” in bone/tooth diseases. No. 23592701, ¥1,820,000

4: Research Grant (Raffinee International): Yuji Yoshiko, Screening for mineralization-associated factors. ¥3,600,000.

5: Grants-in-Aid for Young Scientists (B): Tomoko Minamizaki, A basic study of mineral metabolic disorders with a focus on de novo effect of PTH. No. 23792105, ¥2,080,000

6: The Hiroshima University Support Foundation (Satake Education and Research Fund): Tomoko Minamizaki: Identify of downstream of PTH which inhibits FGF23 production and signaling. ¥300,000.

7: Grants-in-Aid for Young Scientists (B): Hirotaka Yoshioka, Tooth morphogenesis and the regulation of phosphate homeostasis: basic and preclinical studies of tooth hypoplasia., No. 22791768, ¥1,820,000
(5) Academic Awards, etc.


(6) Patent.


Return to Contents
Programs for Applied Biomedicine, Division of Clinical Medical Science (Department of Dental Anesthesiology), and Department of Oral and Maxillofacial Surgery and Oral Medicine (Dental Anesthesiology)

(1) Staff and Students

Professor : Irifune Masahiro, D.D.S., Ph.D.

(2) Main Research Activities

1: Study on mechanisms of general anesthetic action
2: Study on role of each neuron in an intravenous anesthetic agent-induced anesthetic factor
3: Study on a stage of delirium in general anesthesia
4: Study on antianxiety effects of sedative drugs
5: Study on effects of nitrous oxide on cardiovascular system
6: Study on chronic pain
7: Study on efficacy of chest compressions in cardiopulmonary resuscitation
8: Acute medicine for emergency during dental treatments

(3) Research Achievements

A) Original Papers (including Case Reports)

2: General anesthetic management for a patient with strictured trachea caused by malignant lymphoma:

**B) Review**

**C) Publications**


**D) Other Publications**


**E) Presentation at Scientific Meeting**


F) Special lectures in academic meetings

1: Minimum knowledge requirements concerning dentistry for anesthesiologists: Irifune M: The 48th Chugoku • Shikoku Branch Scientific Meeting of the Japanese Society of Anesthesiologists (Hiroshima), 2011.

(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

1: Grant-in-Aid No. 23592992 for Scientific Research (C) from the Ministry of Education, Culture, Sports, Science, and Technology of Japan (New): Irifune M: Elucidation of the role of pain and motor neurons of the spinal cord in antinociception, muscle relaxation, and immobility as general anesthetic components. ¥2600,000.

2: Grant-in-Aid No. 23792348 for Young Scientists (B) from the Ministry of Education, Culture, Sports, Science, and Technology of Japan (New): Doi M: To diagnose lingual pain by imaging; by use of brain functional imaging. ¥1200,000.

(5) Academic Awards, etc.

(6) Patents

Return to Contents
Programs for Applied Biomedicine, Division of Cervico-Gnathostomatolgy (Department of Dental Science for Health Promotion), and Department of Preventive and Restorative Dentistry (Operative and Conservative Dentistry)

(1) Staff and Students

Professor: Fusanori Nishimura
Associate Professor: 
Assistant Professor: Masashi Fujii
Research Associate: Makoto Arakawa, Shigeki Suzuki, Naoyo Motoyama, Akane Mineoka, Akiko Yamashita, Misaki Iwashita
Graduate Student: Hideo Nakarai, Shintara Nagayasu, Takanori Shinjo, Sakiko Fujii, Seiji Kobuke

(2) Main Research Activities

1: Studies on host factors associated with caries susceptibility
2: Studies on relationship between dental disease and systematic diseases
3: Studies on association between nutrients and dental diseases
4: Development of new laboratory tests for diagnosis of dental diseases
5: Development of new preventive therapies for dental diseases based on new laboratory tests
6: Development of biocompatible materials and their clinical application
7: Pathology of discolored teeth and development of new therapy
8: Development of new host-noninvasive therapies using lasers
9: Biological regeneration of dentin/pulp complex

(3) Research Achievements

A) Original Papers (including Case Reports)


B) Review

C) Publications


D) Other Publications


4: This disease and this treatment " hypersensitive": Chugoku Shinbunsha (Hiroshima): Fujii M.: 2011

E) 学会発表


3: Elucidation of amelioration mechanisms of LPS-induced insulin resistance in


5. The establishment of stable cell lines expressing cleavage-resistant Dentin sialophosphoprotein: Suzuki S., Nishimura F.: The 89th IADR General Session and Exhibition (San Diego), March 16-19, 2011.


13. Adipose tissue inflammation and smoking synergistically suppress leptin expression in Japanese obese males: Potential mechanism of resistance to weight

14: Platelet-activating factor (PAF) receptor: a role of initiation and/or maintenance of pathological pain in mice: Motoyama N., Morita K., Kitayama T., Nishimura F., Kanematsu T., Dohi T.: The 53rd Annual Meeting of Japanese Association for Oral Biology (Gifu), September 30-October 2, 2011.


17: Mechanisms of dysfunction of inhibitory neuronal regulation of pain signal transduction may be relevant to the development of neuropathic pain: Motoyama N., Nishimura F.: The 135th, Meeting of the Japanese Society of Conservative Dentistry (Osaka), October 20-21, 2011.


F) Other Publications

1: The periodontal host response with type 2 diabetes: Nishimura F.: 24th Indonesian Dentist Association Congress (Bali), April 1-2, 2011.

2: The periodontal host response with type 2 diabetes: Nishimura F.: The 2nd Joint Scientific Meeting in Dentistry (JSMiD II) (Surahaya), Dec 3-4, 2011.

(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

1: Grant-in-Aid for Scientific Research(C): Arakawa M., The analysis of congenital gingival enlargement complicated with hypertrichosis. No. 23593059 ¥ 4,550,000
2: Grant-in-Aid for Scientific Research: Mineoka A., Acquisition of good quality remineralization enamel. ‘Clarification of mechanism with strontium at nano level’. No. 22791837. ¥ 600,000

3: Grant-in-Aid for Scientific Research(C): Motoyama N., The potential therapeutic strategy for dental pain. No. 21592421. ¥ 1,000,000

4: Grant-in-Aid for Scientific Research: Suzuki S., The establishment of ameloblast cell line from adult stem cells and of the method of tooth germ regeneration. No. 23792176. ¥ 2,470,000

5: JST A-step FS stage: Suzuki S., The application of highly phosphorylated protein delivered from bone and tooth for hard tissue regeneration. No. AS231Z05041F ¥1,700,000

6: Grant-in-Aid for Scientific Research:Challenging Exploratory Research: Nishimura F, Global analysis of molecules the expression is fluctuated in pulp cell cultured with macrophage. No. 23659889. ¥1,560,000

7: Grant-in-Aid for Scientific Research (B)(general): Nishimura F, Collaborative Basic Research on Periodontal Medicine and Geriatric medicine. No. 80208222. ¥2,990,000

8: 3. Grant-in-Aid for Scientific Research (C)(general): Fujii M., Development of non-serum culture medium for selective proliferation of pulp stem cell. 21592422, ¥1,300,000


(5) Academic Awards, etc.


(6) Patents

Programs for Applied Biomedicine, 
Division of Cervico-Gnathostomatology 
(Department of Advanced Prosthodontics) 
Department of Preventive and Restorative Dentistry 
(Implants and Prosthodontics)

(1) Staff and Students

Professor : Yasumasa Akagawa
Associate Professor: Kazuhiro Tsuga, Takayasu Kubo
Assistant Professor : Yasuhiko Abe, Kyou Hiasa
Assistant : Katsunori Koretake, Mineka Yoshikawa, Kazuhiko Hayashi, Yasunari Miyamoto, Kana Harada
Secretary : Rinko Kurumi
Resident : Maho Takeuchi, Ayumi Matsuura, Koji Morita, Mariko Maruyama, Ryo Takeshita
Graduate Student : Hiroshi Oue, Yohei Okazaki, Hirokazu Tsuchioka, Kazuhisa Ookura, Maretaningtias Dwi Ariani, Shinsuke Okada, Shiho Kajihara, Yusuke Makihara, Takahiro Mori

(2) Main Research Activities

1: Development and clinical application of new materials for oral implants.
2: Development of "bio-hybrid" artificial bone made of interconnected porous hydroxyapatite and mesenchymal stem cells.
3: Elucidation of the effect of FGF on bone formation surrounding oral implants.
4: Biomechanics analysis of prostheses and their surrounding bone supported by implants.
5: Elucidation of the effect of prosthodontic treatments on the quality of life of elderly people.
6: Removal prosthodontics and swallowing function of elderly people.
7: Development and clinical application of functional oral rehabilitation utilizing tongue pressure measurement.

(3) Research Achievements

A) Original Papers (including Case Reports)

1. Manometric evaluation of oral function with a hand-held balloon probe.: Tsuga K, Maruyama M,
2011


B) Review


C) Publications
D) Other Publications


E) Presentation at Scientific Meeting


10: Relationship between tongue pressure and bite force in elderly people requiring long-term care: Tsuga K, Maruyama M, Yoshikawa M, Akagawa Y: 22nd annual scientific meeting of Japanese Society for Mastication Science and Health Promotion (Nagoya), 2011.


(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

1: Ministry of Education, Culture, Sports, Science and Technology (MEXT) Grant-in Aid for scientific Research (B) : Kubo T: Invention of a newly artificial bone used by molecular pharmacology processed with the NF-κB decoy. (Grant No. 23390443). ¥10,620,000

2: MEXT Grants-in-Aid for Scientific Research (C) : Tsuga K: Development of Rader-chart for enhancing the anti-aging effect of prosthodontic treatments. (Grant No. 23592850). ¥1,500,000

3: MEXT Grants-in-Aid for Scientific Research (C) : Abe Y: Development of high-level biofunctional nano-surface modification of bionic titanium implant. (Grant No. 21592452). ¥1,100,000

4: MEXT Grants-in-Aid for Scientific Research (C) : Hiasa K: Development of diagnosis system of dental implant immediate load indicated with bone strength. (Grant No. 23502887). ¥4,100,000

5: MEXT Grants-in-Aid for Scientific Research (C) : yoshikawa M: Assessment of the oral and pharyngeal functions for decision making of the ideal thickness of liquid. (Grant No. 23592849). ¥2,000,000

6: MEXT Grants-in-Aid for Young Scientists (B) : Koretake K: Establish standards of remove implant with bone resorption. (Grant No. 22791887). ¥1,100,000

7: MEXT Grants-in-Aid for Young Scientists (B) : Hayashi K.: Development of New Implant Augmentation Drug Delivery System Using a rh-BMP-2 - Gelatin Hydrogel Complex. (Grant No. 2279188600). ¥1,900,000

8: MEXT Grants-in-Aid for Young Scientists (B) : Morita K: Bone regeneration ability of inorganic hydroxyapatite adsorbed long chain polyphosphate. (Grant No. 23792228). ¥1,950,000

9: MEXT Grants-in-Aid for Young Scientists (Start-up) : Harada K: Therapeutic application of polyphosphates in peri-implantitis. (Grant No. 23890134). ¥1,690,000

10: MEXT Grants-in-Aid for Encouragement of Scientists : Maruyama M: Development of a new rehabilitation method for oral function using candy. (Grant No. 23932011). ¥600,000

11: Grant-in-Aid for Scientific Research from the Ministry of Health, Labor and Welfare: Akagawa Y.: Research on review of provision of information on dental service (Grant No.kose-227901): ¥2,200,000

(5) Academic Awards, etc.

1: Poster Presentation Award on International Seminar of the 2nd Joint scientific Meeting in Dentistry : Maretaningtias AD

2: Poster Award on 4th Hiroshima Conference on Education Science in Dentistry : Maretaningtias AD

(6) Patents
(1) Staff and Students

Professor : Yasumasa Akagawa
Associate Professor : Shinsuke Sadamori, Hitoshi Abekura
Research Associate : Shunji Inoue (Until March), Kazuko Kagawa (Until March), Koh-ichi Kuremoto (Since October), Kazuya Doi, Kouji Morita
Secretary : Michiko Miyagawa
Resident : Kazuko Kagawa (Since April), Isao Fujihara, Takeshi Maeda (Until September), Wataru Mizumachi
Intern : Kouichi Kamada, Hiroki Tsuka, Masahiro Tsuboi
Graduate Student : Isao Fujihara, Tomoharu Hori, Tomohisa Okura, Keisuke Nogami
Research Student : Toru Akutsu

(2) Main Research Activities

1 : Selection of osteoblast-precursor cells from oral tissues using cell surface antigen.
2 : Relation between prosthetic treatment and general condition in elderly with dementia.
3 : The study of relationship between oral habits and psychosomatic stress responses measured by salivary chromogranin A.
4 : The antimicrobial efficacy of chlorine dioxide element to add to dental material.
5 : Molecular biology of mesenchymal stem cells towards osteogenic differentiation.

(3) Research Achievements

A) Original Papers (including Case Reports)


B) Review

C) Publications


D) Other Publications

E) Presentation at Scientific Meeting


7: Behavioral and psychological symptoms (BPSD) and oral status in the elderly with vascular dementia: Fujihara I, Sadamori S, Abeura H, Sasaki M, Hamada T, Akagawa Y.: Annual scientific meeting of Japan prosthodontic society Chugoku and Shikoku branches (Okayama), 2011.


F) Special lectures in academic meetings


(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

1: Grant-in-Aid for Scientific Research (C) (2): Sadamori S., The relation between breathing and denture wearing and not wearing during sleep. No. 23592848. 3,380 thousand yen


4: Grant-in-Aid for Scientific Research (C): Mizumachi W., Development of occlusal support ability system in residual teeth based on clinical data processing. No. 23592847. 1,900 thousand yen.

5: Grant-in-Aid for Young Scientists (B): Doi K., Mandibular bone regeneration by using bio intelligent artificial bone. No. 22791889. 2,080 thousand yen.

6: Grant-in-Aid for Young Scientists (B): Morita K., Bone regeneration ability of inorganic hydroxyapatite adsorbed long chain polyphosphate. No. 3792228.1,950 thousand yen.

7: Grant-in-Aid for Young Scientists (B): Maeda T., Study on the evaluation of prototype tissue conditioners formulated stable chlorine dioxide No. 22791888. 2,730 thousand yen.
(5) Academic Awards, etc.

1: Kamada K.: The 120th Annual Meeting of Japan Prosthodontic Society Subject Oral Presentation Award

2: Morita K.: The 14th Hiroshima University school of Dentistry the alumni association Encouragement Award

(6) Patents
Programs for Applied Biomedicine, Division of Cervico-Gnathostomatology (Department of Orthodontics and Craniofacial Developmental Biology)
Department of Oral Health and Development (Orthodontics)

(1) Staffs and students

Professor : Kazuo Tanne
Associate Professor : Toshitsugu Kawata
Assistant Professor : Hiroshi Ueda, Kotaro Tanimoto,
Research Associate : Masato Kaku, Tadashi Fujita, Junji Ohtani, Masahide Motokawa, Myongsun Koh, Yuki Tanne
Special appointed assistant professor : Maya Shirakura
Intern : Yasunori Iwabuchi, Ryo Kunimatsu, Genki Watanabe, Goshi Ito, Noritsugu Ozaki, Aki Kawazoe, Hiroyuki Koseki, Hiroko Sunagawa, Tomoko Sasamoto, Naoto Hirose, Atsushi Horihata, Masahiko Michida, Motoko Yoshioka,
Graduate Student : Hidetaka Hayashi, Yayoi Matsuda, Tomomi Mitsuyoshi, Sara Abedini, Syunichi Kojima, Keisuke Sumi, Noriko Tsubamoto, Akiko Terao, Yuki Yoshimi, Emi Ishikawa, Kyoko Murasaki, Yuji Tsuka, Su Shao Ching, Hiromi Sumi, Kaori Takahashi, Tetsuya Awada, Nanae Oki, Hanaka Shikata, Eri Fujii, Fang Zhao, Yuki Okamoto, Tahsin Raquib Abonti, Morio Masunaga (adult graduate student)
Resident : Kayo Horie
Professor (part-time) : Kazuhiro Ueki, Toshitsugu Kojima, Hiroharu Tsuka, Hiroshi Hanaoka, Junichiro Iida
Registered Intern : Kuniaki Tanaka, Kazunori Itatani, Hiroko Kamada, Youhei Suetaka, Ryoko Yamamoto, Natsumi Tsuka, Satoru Ohkuma, Kouji Takahashi
Dental Hygienist : Kouchi Ayumi

(2) Main academic activity

1: Viscoelastic property of temporomandibular joint disks.
2: Effects of growth factors on the proliferation and differentiation of condylar cartilage and the disk cells.
3: Biomechanical investigation of TMJ loading and assessment of lubricating function.
4: Mechanisms of pain transmission during experimental tooth movement and clarification of pain control.
5: Changes in stomatognathic functions from orthodontic surgery.
6: Association between nasal respiratory disturbances and craniofacial morphology and masticatory and respiratory functions.
7: Influences of mechanical stimuli on the proliferation and differentiation of chondrocytes.
8: Clarification of PDL regeneration mechanism.
9: Metabolism of hyaluronan in TMJ synovial fluid.
10: Influences of food consistency on neuropathological changes in the cerebral cortex.
11: Regeneration of bone and cartilage with mesenchymal stem cells.
12: Control mechanism of bone growth and development with sex hormone.
13: Long term cryopreservation of various tissues and cells
14: Development of biomineralization therapy for damaged tooth enamel using enamel matrix proteins
15: Utility of amelogenin peptides for bone regeneration

(3) Research achievement

A) Original article


B) General remarks

1. The functional assessment of casein phosphopeptide in osteoporosis model mice.: Ohtani J., Tanne

C) Books

D) Other publications

E) Presentation at Scientific Meeting
7. A safety and reliable implantation established by using a torque controllable hand driver.: Ohtani


School Of Biomedical Sciences (Hiroshima), 2011.


20. Long-term cryopreservation of mouse osteoblasts by use of a program freezer with magnetic field: Koseki H.: 3rd International Workshop on BioDental Education & Research Hiroshima University Graduate School Of Biomedical Sciences (Hiroshima), 2011.


23. The role of microglia in neuropathic pain of maxillofacial region: Ito G.: 3rd International Workshop on BioDental Education & Research Hiroshima University Graduate School Of Biomedical Sciences (Hiroshima), 2011.

24. The role of transcription factor GATA6 in proliferation, differentiation, and integrin expression in mesenchymal stem cells (MSC): Michida M.: 3rd International Workshop on BioDental Education & Research Hiroshima University Graduate School Of Biomedical Sciences (Hiroshima), 2011.

25. The role of Dec2 in osteogenic, adipogenic, chondrogenic differentiation of bone marrow derived mesenchymal stem cells: Sasamoto T.: 3rd International Workshop on BioDental Education & Research Hiroshima University Graduate School Of Biomedical Sciences (Hiroshima), 2011.


45. Orthodontic approach to avoid the prosthodontic treatment in the non-extraction cases with three mandibular incisors: Takahashi K., Myoishi-Hattori Y., Ito K., Tanne K.: 54th Annual Meeting of Chu-Shikoku Orthodontic Society (Matsuyama), 2011.


Society for the Temporomandibular Joint: The 2nd Asian Academic Congress for the Temporomandibular Joint.


F) Academic society symposium and special lecture


6. Tanimoto K.: Background of our recent PhD studies regarding mesenchymal stem cells - bone regeneration of cleft palate and functions of enamel matrix proteins as a signaling molecule -: 3rd International Workshop on BioDental Education & Research Hiroshima University Graduate School Of Biomedical Sciences (Hiroshima), 2011.


(4) Scientific research grant -in-aid
1. Grant-in-aid for Scientific Research (B): Tanne K.: Effectiveness of improvement of lubrication and condylar cartilage regeneration in temporomandibular joints with osteoarthritis. No. 23390474. 4,900,000 yen

2. Grant-in-aid for Scientific Research (C): Tanimoto K.: Optimization of bone regeneration by transplantation of mesenchymal stem cells and application to the closure of jaw cleft. No. 23593029. 1,820,000 yen


9. Grant-in-Aid for Scientific Research: Iwabuchi Y.: Regenerative therapy of temporomandibular joint osteoarthritis developed by the regulative technology of matrix metabolism with low intensity pulsed ultrasound irradiation.: No. 22890122. 730,000yen.


13. Ishikawa Corp.: Verification of commoditizing and efficacy of disinfect in calcium iron water.: 1,000,000yen.


16. Tanimoto K.: Grant-in-Aid for Clinical Research Hiroshima University Hospital, 2011, Establishment of bone regeneration of cleft palate using mesenchymal stem cells derived from bone marrow, 500,000yen

(5) Commendation


2. Abedini S.: Long-term cryopreservation of periodontal ligament cells and pulp tissues with a newly-developed magnetic field programmed freezer.: The 44th Dental meeting of Hiroshima University: Best presentation award.


6. Yoshioka M: Bone regeneration with mesenchymal stem cells and orthodontic tooth movement into the regenerated bone area: The 4th International Congress & The 70th Annual Meeting of the Japanese Orthodontic Society: Best presentation award.


9. Shirakura M: The Hatton Award 2012 Finalist of Japanese Association for Dental Research (JADR)

10. Y.C. Huang.: Effects of human full-length amelogenin on the proliferation and osteogenic differentiation of human mesenchymal stem cells derived from bone marrow: 3rd International
Workshop on BioDental Education & Research Hiroshima University Graduate School of Biomedical Sciences. Oral presentation award

11. Ito G: The role of microglia in neuropathic pain of maxillofacial region: 3rd International Workshop on BioDental Education & Research Hiroshima University Graduate School Of Biomedical Sciences. Oral presentation award

(6) Patent

Return to Contents
(1) Staff and Students

Professor : Katsuyuki Kozai
Associate Professor : Fumiko Hayashi (~March), Chieko Mitsuhata (April~)
Research Associate : Yasutaka Kaihara, Chieko Mitsuhata, Goh Yoshimura
                  Meiko Tachikake (April~), Noriko Kadomo (~October), Aya Tsuboi
Physician : Mihaya Ariki, Ryoko Hirata, Satoko Otani, Nami Miyake
           Masafumi Kitamoto(April~)
Graduate Student : Yukari Ohara, Hu Yiqun Yukiko Konishi, Ayumi Shimada
                   Aomin, Yuko Iwamoto, Noriko Kodama, Nobuyuki Tatsukawa (April~)
Research Student : Mie Hirakawa(~March), Akira Yamane, Masafumi Kitamoto(~March)
Registered Intern : Ayako Banshoudani(~March), Mie Hirakawa, Noriko Kashiwa (~March)
                   : Kazunori Matsuura (April~),

(2) Main Research Activities

1 : Automutanolysin in oral streptococci
2 : Research in oral bacteria especially Staphylococcus aureus in children
3 : Bacteriological and epidemiological research in periodontal diseases in children
4 : Behavior evaluation of psychological stress in dental treatment in children
5 : Transmission of mutans streptococci
6 : Seeking for anti-cariogenic substance from natural foods
7 : Denaturalization of tooth by low pH beverage
8 : Research in maltreated children's oral health and study for construction of health improvement system
9 : Surveillance study to construct a preventive and educational program for oral health promotion of Cambodian children

(3) Research Achievements

A) Original Papers (including Case Reports)


B) Review


C) Publications


D) Other Publications


E) Presentation at Scientific Meeting


7: Experimental study on relationship between periodontitis and systemic diseases —Systemic
influence of continuous application of LPS to periodontal tissues: Furusho H., Miyauchi M., Aomin, Inubushi T., Kitagawa M., Takata T.: The 3rd International Workshop on BioDental Education & Research Hiroshima University Graduate School of Biomedical Science (Hiroshima), 2011.


F) Special lectures in academic meetings


8: The 33rd Hiroshima-ken Shouni Hoken Kenkyu-kai: Recent topics of pediatric dentistry: Kozai K.: Hiroshima City Hospital (Hiroshima), 2011.


(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

4: Grant-in-Aid for Scientific Research (B): Tachikake M.: Elucidation of the mechanism of the inhibition of the differentiation of osteblasts by LPS from A.a. (No. 21792074). ¥1,000,000.
5: Grant-in-Aid for Encouragement of Scientists: Otani S.: Association of melanin pigmentation in the gingiva of children with passive smoking (No. 22932007). ¥400,000.
6: Grant-in-Aid for Scientific Research (C): Mitsuhata C.: Effects of endocrine disorders on developing dopaminergic system in Brain (No.19592354). ¥1,050,000.
10: Grant-in-Aid of Futoku-kai: 2010: Ao min. ¥300,000.

(5) Academic Awards, etc.

2: Yukiko Konishi: ASBMR 2011 Young Investigator Travel Grant at the American Society for Bone


(6) Patents


Return to Contents
Programs for Applied Biomedicine,
Division of Cervico-Gnathostomatology
(Department of International Collaboration Development for Dentistry)

(1) Staffs and Students

Director: Takashi Takata (Dean, Professor; April-)
Associate Professor: Udijanto Tedjosasongko (Specially appointed; April-)
Research Associate: Hiroko Oka (Specially appointed; April-)

(2) Main Research Activities

1 : Development and evaluation of dental education program cooperated with Asian countries
2 : Development and evaluation of Japanese-English dual linguistic education system
3 : Study on international exchange program
4 : Study on contribution to international community through dentistry
5 : Research on the specific mechanisms of destruction in periodontal tissue

(3) Research Achievements

A) Original Papers (including Case Reports)


B) Review

C) Publications

D) Other Publications

1 : The report for BioDental GP program in fiscal 2011 : Graduate School of Biomedical Sciences,
E) Presentation at Scientific Meeting


2: Current status of Dental English education in Hiroshima University : Oka H : The 1st Discussion Forum to Develop a Core Curriculum for Dental English Education (Okayama), 2011.

F) Special lectures in academic meetings and extension lectures


3: Hiroshima University Campus/ Course/ Classroom Exhibition : Study as foreign students in Hiroshima University (International Collaboration Development for Dentistry) : Udijanto Tedjosasongko : Hiroshima University Faculty of Dentistry (Hiroshima), 2011.


5: Hiroshima University Campus/ Course/ Classroom Exhibition : Leadership (International Collaboration Development for Dentistry) : Udijanto Tedjosasongko : Hiroshima University Faculty of Dentistry (Hiroshima), 2011.


7: The report of BioDental GP program and assessment for the next step: The 3rd Meeting of Faculty Development : Hiroshima University Graduate School of Biomedical Sciences (Hiroshima), 2011.
8: Hiroshima University Campus/Course/Classroom Exhibition: Poster Presentation: Udijanto Tedjosasongko: Hiroshima University Graduate School of Biomedical Sciences (Hiroshima), 2011.

(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

1: Grant-in-Aid for Young Scientists (B): Hiroko Oka: Mechanism of hard tissue destruction controlled by F-spondin via LDL receptor family. (No. 23792103). ¥1,300,000.

(5) Academic Awards, etc.

(6) Patents

(7) Others

A) The number of the foreign students for the international exchange program

1: The 1st international short exchange program: 17 students (Taipei Medical University, 4th-year, Taiwan): 5 days, 2011.

2: The 2nd international short exchange program: 4 students (Faculty of Dentistry, Airlangga University, 5th-year, Indonesia), 2 students (Khon Kaen University, 5th-year, Thailand): 14 days, 2011.

3: International exchange program: 2 students (Taipei Medical University, 3rd-year and 4th-year, Taiwan): 1 year, 2011.

4: International Dental Course: 3 students (2 students: Faculty of Dentistry, Airlangga University; 1 student: Faculty of Odonto-Stomatology, University of Medicine and Pharmacy at HoChiMinh City), 2011.

B) Grateful letter


C) Homepage of International Program

1: http://icdd.hiroshima-u.ac.jp/
D) Conclusion of Memorandum of Agreement of International Exchange Programs (Support)

1 : Faculty of Dentistry, Airlangga University-Indonesia
2 : Faculty of Odonto-Stomatology, University of Medicine and Pharmacy at HoChiMinh City, Socialist Republic of Vietnam

E) Supporting the International Research Exchange Program

1 : Preparing the documents for sending the research equipment grant from Hiroshima University Faculty of Dentistry to Airlangga University Faculty of Dentistry

Return to Contents
Master’s Program for Oral Health Sciences,  
Division of Oral Health Sciences  
(Department of Public Oral Health)

(1) Staffs and Students

Professor : Masaru Sugiyama  
Assistant Professor : Maki Nosou  
Assistant Professor : Atsushi Shimazu (Department)  
Graduate Student : Rumi Nishimura, Aya Tamura

(2) Main Research Activities

1 : Study on oral care  
2 : Study on the relationship between oral sensitivity and oral functions in elders  
3 : Experimental study on the mechanism of growth and regeneration of periodontal tissues  
4 : Study on the activities of oral health at school

(3) Research Achievements

A) Original Papers (including Case Reports)


B) Review
C) Publications

D) Other Publications

E) Presentation at Scientific Meeting
8 : A study on key factors for good facial profiles in cases of skeletal class III malocclusion treated by two-jaw surgery : Tamura A, Kaku M, Sugiyama M, Motokawa M, Shimazu A, Amano H, Kawata
F) Contribution to Community

1: Shimazu A: Dental Support Activity in Cambodia (Cambodia), 2011.
3: Shimazu A: Dental Examination for Acidity and Alkalinity (Hiroshima), 2011.
6: Sugiyama M: Refresher course for dental hygienists (Step up course) “High points to see outpatients — Assessment of general condition —”, Hiroshima, 2011.8.25.
7: Sugiyama M: Special lecture in the annual meeting of the dental department in hospitals of Yamaguchi Prefecture “To develop team approaches to dental care — Trials by School of Oral Health Sciences, Hiroshima University Faculty of Dentistry —”, Hofu, 2011.9.10.

(4) Status of Receiving Grants-in Aid for Scientific Research, etc.


(5) Academic Awards, etc.

(6) Patents

Return to Contents
Master’s Program for Oral Health Sciences, Division of Oral Health Sciences (Department of Maxillofacial Functional Development)

(1) Staff and Students

Professor : AMANO Hideaki
Assistant Professor : HARA Kumiko
Research Associate : TSURUDA Keiko
Graduate Student : IWAMOTO Akiko, FUKADA Eri, TETSUMORI Kotomi

(2) Specialized Fields

1 : Clinical research of the growth and development of dento-maxillofacial complex in children
2 : Study on the Dentistry for children and disabilities
3 : Study on the activation of the function of salivary glands
4 : Study on the methods for Oral health care
5 : Study on the education program for Oral health
6 : Study on the development of oral function
7 : Study on education program for graduate dental hygienists
8 : Study on the Mechanism of Aggregatibacter actinomycetemcomitans-CDT complex formation and secretion

(3) Achievements

4 : A study on key factors for good facial profiles in case of skeletal Class III malocclusion treated by two-jaw surgery : TAMURA Aya, KAKU Masato, SUGIYAMA Masaru, MOTOKAWA Masahide,

B) Reviews

C) Books

D) Other Publications

E) Presentations

1 : A Program for maintenance of better oral functions in a seminar of care prevention : Eri Fukada, Rumi Nishimura, Kaoru Yamashita, Akiko Iwamoto, Hiroki Nikawa, Kumiko Hara, Hideaki AMANO : 18th Annual Meeting of the Japanese Society of Dental Welfare (Okayama), 2011.5.15
3 : An analysis of suckling and swallowing functions from measurement of internal pressure of oral cavity – A prototype of clinical measurement system of internal pressure of oral cavity- : Eri Fukada, Hideaki Amano, Shinichi Nagasaki, Kumiko Har, Masaru Sugiyama, Keiji Tanimoto : 44th Annual Meeting of Hiroshima University Dental Society (Hiroshima), 2011.6.11.
5 : CdtC-induced processing of membrane-bound CdtA is a crucial step in complex formation of CDT holotoxin. Keiko Tsuruda, Motoyuki Sugai. International Union of Microbiological Societies 2011 Congress (Sapporo, Japan), 2011. 9. 6-10
8 : Effectiveness of the seminar of care prevention by assessments of oral functions : Eri Fukada, Rumi


F) Lectures
1: Review the Oral Care : Hara K.: Seminar for Study Group of Oral Care (Kagoshima), 2011.2.20.
4: An Effort to go for better Team Dentistry Medicine of the School of Oral Sciences, Hiroshima University Faculty of Dentistry 2. From a view point of Dental Hygienist. : Hara K.: Yamaguchi Pref. Medical Center (Yamaguchi), 2011.9010

G) Social Contributions
1: Program for kids from elementary schools, Dental Kids, “Let’s Be a Dentist!”: Hiroshima University Faculty of Dentistry, 2011.
2: Program for high school students, Dental Kids: Hiroshima University Faculty of Dentistry, 2011.
3: Cooperate to the assessment of the Program for improvement of oral function in the ambulatory care facility “Kosei-En”, 2011.

(4) Grant-in-Aid for Scientific Research
1: 2011th grant-in-aid for scientific research : Hara K.: An analysis of lowering factors of salivary secretion and development of the preventive program for the xerostomia. (No. 21592650)
2: 2011th grant-in-aid for scientific research : Tsuruda K.: Development of the method of preventing infection under control of the mucosal genes. (No.22592333)

(5) Awards

(6) Patents
Master’s Program for Oral Health Sciences,
Division of Oral Health Sciences
(Department of Oral Health Management)

(1) Staffs
Professor: Toshinobu TAKEMOTO
Assistant professor: Atsue MATSUMOTO
Research associate: Yoshie NIITANI
Graduate student: Koutarou KUBO (until March), Hinako TSUZUKI (From April)
Graduation thesis student: Chiaki NAKAMORI, Junko YUTOU, Ayana MIYAMOTO, Chiaki SASA,
Yukina KOUSAKA, Moeko HAYASHI, Mai HINODE, Kaori OZEKI,
Haruno HAMASUNA, Miho TOYOTA, Yui KOTAKE, Saki OGURA,
Chisato OHSHTA, Miho KUME

(2) Research Fields
1: Dental hygienists education
2: Research about dental hygienists occupation
3: Career formation of students
4: Oral relaxation method
5: Relation between saliva flow and emotion
6: Education about counseling
7: Infection control in dentistry
8: Research about halitosis

(3) Achievements

A) Original Articles


2: [Dental Service Activity Report in Cambodia Elementary School][ja]: Matsumoto A., Iwamoto A.,
Omae Y., Shimazu A., Amano H., Fujiwara N., Tsuka T., Ashikaga N., Kawano S., Moriyama Y.,
Matsuzoe K., Ouchi A., Miyasako S., Okita S., Muroi N., Muroi M., Nin E., Ando T., Yoshimoto T.,
Otani S., Iwamoto Y., Kodama N., Kadomo N., Kozai K., Nishimura F., Takata T.: J. Hiroshima

C） Books

1: [Oral prophylaxis and oral health instruction][ja]: The newest series of textbook for dental hygienists
(Matsumoto A.: Contributor): Edited by the Japan Association for Dental Hygienist Education,
Ishiyaku Publishers (Tokyo) 2011.

E） Presentations at Scientific Meeting

1: [Analysis of sound environment in dental clinic and proposal of noise prevention scheme][ja]:
Iwamoto A., Sugiyama M., Takemoto T., Amano H: The 44th Annual meeting of the Hiroshima
University Dental Association(Hiroshima),

2: [Analysis of peripheral vein width and salivary free radical at the time of ‘oral relaxation’ ][ja]:
K., Shimazu A., Takemoto T: The 22st annual meeting of the Kinki-Chugoku-Shikoku Branch of
the Japanese Society for Dental Health (Tokushima), 2010.

3: [Study of job satisfaction and vocational motives about dental hygienists][ja]: Tsuzuki H., Tai S.,

4: [Survey about the use of demonstration movies in basic practice on dental assistant work: Tai S.,
Tsuzuki H., Takemoto T.: The 30th Annual Meeting of Japanese Dental Education Association
(Tokyo), 2011.

5: [A study on the introduction of ‘dental hygiene process’ into dental hygiene education in Japan][ja]:
Hara K., Fujiwara A., Yoshida N., Oyama S., Okahash T., Niitani Y., Matsumoto A., Kondou K.,

6: [Oral health educational program for the primary school teachers in Cambodia][ja]: Iwamoto A.,
of Japanese Dental Education Association (Tokyo), 2011.

7: [The relation between job continuity will and job satisfaction or vocational motives about dental
hygienists at private dental clinic][ja]: Tsuzuki H., Takemoto T.: The 6st Annual meeting of the
Japanese society of dental health (Niigata), 2011

8: [Study about the efficacy of ‘oral relaxation method’ – The change in finger vein width and salivary


F) Lectures

1 : [The education and research at Oral Health Science Course –about Dental Hygienists Education Program][ja]: Takemoto T., Annual meeting of Hiroshima Association of Dental Hygienist Education (Hiroshima), 2011.

2 : [Lecture about mouth, group instruction of tooth][ja]: Matsumoto A.: Child-care course of a community program of the nursery school, Danbara Mimyo Nursery School (Hiroshima): 2011.

3 : [Lecture about mouth, group instruction of tooth][ja]: Matsumoto A.: Child-care course of a community program of the nursery school, Mimyo Nursery School (Hiroshima): 2011.

4 : [Oral care for pregnant woman and new born infant][ja]: Matsumoto A.: School for pregnant women in Gynecology department of Hiroshima University Hospital (Hiroshima), 2011.


6 : [Dental Hygiene 3][ja]: Niitani Y.: JADHE program I for teachers in dental hygienists schools (Gifu)
G) Social Contributions

1: Program for kids from elementary schools, Dental Kids, “Let’s Be a Dentist!”: Hiroshima University Faculty of Dentistry, 2011.
2: Renewal seminar for teacher’s license: Takemoto T, Hiroshima University (Hiroshima), 2011.
3: Member of Dental Hygienists’ Examination committee: Matsumoto A., Niitani Y.: Foundation of Promoting Dental Care and Training, 2011.
4: Secretary of the regional association of Kinki, Chugoku and Shikoku area for Japanese Society for Dental Health: Matsumoto A, 2011.
5: Member of dental hygienists authorization committee: Matsumoto A., Japan Dental Hygienists’ Association, 2011.
9: Member of dental working group in committee of National University Hospital infection control association: Niitani Y., Training seminar at Chugoku-Shikoku Block in 2011(Okayama), 2011

(4) Status of Receiving Grants-in-Aid for Scientific Research, etc.

1: Grant-in-Aid for Scientific Research (C): Takemoto T.: The analysis of factors indicating the quit of dental hygienist and settling a plan for the prevention. (No.23593090). ¥1,400,000
2: Grant-in-Aid for Scientific Research (C): Matsumoto A.: Study about the efficacy of ‘oral relaxation method’ in the prevention of mental stress. (No.21592649). ¥500,000

(5) Academic Awards

1: Ishikawa Y.: The 6th award for scientific article (Encouragement award) of the Japanese society of dental health
Prize winning article (Graduation research of Hiroshima Univ. in 2008):

Return to Contents
Master’s Program for Oral Health Sciences,
Division of Oral Health Sciences
(Department of Anatomy and Functional Restorations)

(1) Staff and Students

Professor : Takahiro Satoda
Assistant Professor : Saiji Shimoe
Graduate Students : Shougo Iwaguro, Yuji Chiba, Syouji Matsushita, Hiroki Nishida, Kumiko Hirose

(2) Main Research Activities

1: Development of Effective model for anatomy education
2: Morphological Research on masticatory neuronal network
3: Study on dental materials for esthetic
4: Study on new clinical application using novel dental ceramic
5: Study on objective evaluation using the three-dimensional image

(3) Research Achievements

A) Original Papers (including Case Reports)


B) Review
C) Publications


D) Other Publications

E) Presentation at Scientific Meeting

1: Functional model of the Suprahyoid and Infrahyoid muscles : Takahiro Satoda, Hiroki Nishida, Kumiko Hirose, Ranka Kyoda, Yosuke Arima, Saiji Shimoe : The joint meeting of the 88th Annual Meeting of the Physiological Society of Japan & The 116th Annual Meeting of Japanese Association of Anatomists (Yokohama), (This meeting was canceled due to HigashiNihon Daishinsai) 2011.3.


7: The changes caused by shift to four-year college in Department of Oral Engineering Institute of Oral Health Science Hiroshima University Faculty of Dentistry—Data of new students, education and getting employment—: Saiji Shimoe, Takahiro Satoda, Mitsuhiro Tamamoto, Takeshi Murayama, Tuyoshi Taji, Kazuko Kawahara, Hisako Sasahara, Hiroki Nikawa : Annual Meeting of Nippon Academy of Dental
Technology, The 6th Cyugoku-Shikoku regional meeting (Tokushima), 2011.11.

8: Influence of surface burning conditions on bonding between zirconia ceramic material and veneering porcelain. : Syougo Iwagura, Saiji Shimoe, Takahiro Satoda, Nozomi Tsumura, Yuji Chiba : Annual Meeting of Nippon Academy of Dental Technology, The 6th Cyugoku-Shikoku regional meeting (Tokushima), 2011.11.


(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

1: Grant-in-Aid for Scientific Research(C) (Continuance): Shimoe S: Development of tooth-friendly zirconia crown restorations optimized polymer composite resins. (No. 21592453). ¥800,000

(5) Academic Awards, etc.


(6) Patents

Return to Contents
Master’s Program for Oral Health Sciences,
Division of Oral Health Sciences
(Department of Medical System and Biomaterial Engineering)

(1) Staff and Students

Professor: Takeshi Murayama
Associate Professor: Mitsuhiro Tamamoto
Graduate Student: Daigo Tomonari, Mana Kawakami, Keita Yauchi, Tsuyoshi Hidaka,
Shinya Chiba, Kouki Ishizu
Graduation Research Students: Yuta Takumi, Kousei Ohno, Setsuri Shimazaki, Keisuke Hayashida,
Asumi Yamaguchi, Asumi Nagata, Mayumi Nakanodo, Megumi Nishikawa, Noriko Fujimoto, Yuuko Fuchimoto, Haruka Houchi,
Shuich Masu

(2) Main Research Activities

1. Application of CAD/CAM and rapid prototyping to dentistry
2. Concurrent engineering in dentistry
3. 3D-modeling and computer simulation in dentistry
4. Development and clinical application of maxillofacial prosthetic apparatus for treatment and protection
5. Study on esthetic dentistry
6. Study on dental education
7. Analysis of dental techniques using a motion-capture system
8. Simulation-based analysis of work processes in dental technology
9. Study on sports dentistry (mouthguard)
10. Study on musical dentistry (music splint)

(3) Research Achievements

A) Original Papers (including Case Reports)
Takahiro SATODA


B) Review

C) Publications

D) Other Publications

E) Presentation at Scientific Meeting


F) Special Lectures in Academic Meetings

(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

1: Grants-in-Aid for Scientific Research (Challenging Exploratory Research): Takeshi Murayama (Representative), Health monitoring system using wearable sensors involved in dentures. No. 23650352. 1,500,000yen
2: Grants-in-Aid for Scientific Research (Scientific Research (C) (General) ): Mitsuhiro Tamamoto (Cooperation), Development of tooth-friendly zirconia crown restorations optimized polymer composite resins. No. 21592453. 50,000yen
3: JST A-STEP(Adaptive and Seamless Technology Transfer Program through Target-driven R&D) FS-stage: Takeshi Murayama(Cooperation), Development of high-precision pressing system for dental titanium mesh and band. No.AS232Z02507F. 1,300,000yen

(5) Academic Awards, etc.

(6) Patents

Return to Contents
Master’s Program for Oral Health Sciences
Division of Oral Health Sciences
(Department of Oral Biology & Engineering)

(1) Staff and Students

Professor: Hiroki Nikawa
Assistant Professor: Hisako Sasahara, Tsuyoshi Taji
Research Associate: Kazuko Kawahara
Research Associate: Yuichi Mine
(Special Appointment)
Secretary: Miki Onji
Research Assistant: Kaori Taguchi
Graduate Student: Takuya Kihara, Yuichi Mine, Sumiyo Mimura, Hitomi Ishii, Satoshi Iwata,
Emi Okura, Shota Okazaki, Suguru Kawamura, Yuko Takamoto, Yukihiro Takayama, Sachie Hogaki, Minako Okamura, Yuko Katabuchi, Minako Shinkawa,
Tomoya Tamura, Minako Hiramatsu, Rie Fukuda, Eri Morooka, Yu Yamaguchi,
Kaori Yushita
Undergraduate Student: Hitomi Kajiwara, Asami Katayama, Megumi Kurose, Mao Shiba, Hideki
Tanaka, Ayane Toda, Yu Tomiyama, Yukari Muraoka, Natsumi Yamamoto,
Yusuke Yamamoto, Mikiko Kurose, Mari Sakata, Ayumi Sato, Kentaro
Takagi, Xiaoxu Zhang

(2) Main Research Activities

1: Mechanisms on allergy caused by dental materials
2: Study on candidal biofilms and denture plaque
3: Study on dental caries and probiotics
4: Design for cationic antimicrobial peptides
5: Study on large-scale proliferation of the mesenchymal stem cells using antimicrobial peptides
6: Study on mechanisms of the alveolar bone resorption and on bone - resorption inhibitors
7: Study on dental implant materials

(3) Research Achievements
A) Original Papers (including Case Reports)


B) Review

C) Publications

D) Other Publications

E) Presentation at Scientific Meeting


2: Chemically Defined Serum-Free Medium for Undifferentiated Human Mesenchymal Stem Cells :


7: How many tooth-related genes are there in shark genome?: Shinkawa M, Nikawa H, Ohara M, Makihira S, Kawahara K: 4th Hiroshima Conference on Education and Science in Dentistry (Hiroshima), 2011


(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

(5) Academic Awards, etc.

(6) Patents
Central Research Laboratory

(1) Staff and Students

Director : Fusanori Nishimura (by-work)
Research Associate : Ikue Hayashi

(2) Main Research Activities

1 : Proteomic analyses using mass spectrometry
2 : Structural analysis of biologically active substances

(3) Research Achievements

A) Original Papers (including Case Reports)


B) Review

C) Publications

D) Other Publications

E) Presentation at Scientific Meeting


2: The autolysin IspC acts as an N-acetylglucosaminidase in Listeria monocytogenes serotype 4b.
Ronholm J., Cao X., Hayashi I., Sugai M., Lin M: CSM Conference 2011

(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

1: Research project, Grant-in-Aid for Scientific Research (C): Hayashi I: Mechanism of automutanolysin (Aml) for the specific selectivity toward cariogenetic bacteria:(No. 23592702), ¥2,860,000

(5) Academic Awards, etc.

(6) Patents

\textbf{Return to Contents}
Department of Advanced General Dentistry, 
General Dentistry

(1) Staff and Students

Professor : Tetsuji Ogawa (※) Vice President of Hospital : Tetsuji Ogawa (until March 2011)
Associate Professor : Norihiro Taguchi (until March 2010)
Research Associate : Yoshihara Tanaka, Masaru Ohara, Hiromi Nishi
Graduate Student : Taiji Obayashi, Kayo Kajitani (from April, 2011), Yukiko Nagatani (from April, 2011)
Secretary : Tomoe Sasaki (until February 2011)

(2) Main Research Activities

1. Research in patient-centered dentistry based on narrative approach
2. Research in general dentistry
3. Examination of postgraduate dental training program
4. Research in health communication strategy
5. Research in clinical education
6. Research in assessment of clinical skills
7. Research in development and standardization of simulated patients

(3) Research Achievements

A) Original Papers (including Case Reports)


B) Review

C) Publications

D) Other Publications

E) Presentation at Scientific Meeting


5. The green tea polyphenol (-) epigallocatechin gallate precipitates salivary proteins. -Biochemical study-: ○Masaru Ohara, Yoshihiko Ohyama, Ikue Hayashi, Hiromi Nishi, Yoshiharu Tanaka, Takamune Hino, Tetsuji Ogawa: Research Seminar in General Dental Medicine, Niigata, 2011.


7. Self-reflection on the past communication education. ○Tetsuji Ogawa: Communication Association in Japan Chugoku-Shikoku branch, Educational Research Seminar in Health Communication,

F) Implementation of Seminars / Workshops

1. Workshop for postgraduate trainees 2011 (Hiroshima)

G) Lecturer · Symposium

H) Attending of Lectures, Seminars, and Workshops

2. The 2nd MEDC workshop: Attendant: Taiji Obayashi, at Gifu Univ. Medical Education Center, (Gifu), 2011.
8. The 1st workshop (H23) on dental OSCE on medical communication: Attendant: Hiromi Nishi. Coordinator: OSCE committee (Gifu), 2011.

I) Implementation of OSCE, CSA
1. 2nd Advanced OSCE for Postgraduate Trainees 2010-2011
2. 1st Advanced OSCE for Postgraduate Trainees 2011-2012

(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

1. Grant-in-Aid Scientific Research, Young Scientists (B). Nishi H.: Analysis of Toll-like receptor in oral mucosal disease. Program No. 23792346. 1,600,000yen
2. Grant-in-Aid Scientific Research, Scientific Research (C). Ogawa T.: The theory and measurement methodology of politeness phenomena in the medical interview. Program No. 23520509. 400,000yen (co-researcher)

(5) Academic Awards, etc.

(6) Patents
Department of Oral Health and Development, Preventive Dentistry

(1) Staff and Postgraduate students

Assistant Professor: Makoto Kawamura

(2) Research fields

1: Behavioral science regarding oral health
2: Studies on community dental health
3: Studies on school dental health
4: Studies on computer-aided diagnosis scheme for periodontal disease

(3) Publication

A) Original Papers (including Case Reports)


B) Reviews

C) Books/Book Chapters
D) Proceedings/Others

E) Presentations


(4) Grants-in-aid

(5) Awards

(6) Patents
Department of Oral Health and Development
(Special Care Dentistry)

(1) Staffs and Students

Professor : Mitsugi Okada (from June 2011 to present) （※）Head of Dentistry
Resident : Yuki Oda
Registered Intern : Megumi Iwamoto

(2) Main Research Activities

1: A study on caries risk of patients with disabled
2: A study on risk of periodontal disease of patients with disabled
3: A study on dental problems of patients with disabled
4: A study on PBL task for dental problem of patients with mental retardation

(3) Research Achievements

A) Original Papers (including Case Reports)


B) Review

C) Publications
D) Other Publications

E) Presentation at Scientific Meeting


(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

(5) Academic Awards, etc.

(6) Patents

Return to Contents
Central Clinical Sections, Special Dental Clinic Section

(1) Staff and Students

Chief Professor : Keiji Tanimoto
Research Associate : Yukimi Yasuhara

(2) Main Research Activities

1: Perceptual Evaluation of Cleft Palate Speech
2: Clinical Application of Electropalatography
3: Research for improvement in articulation problem
4: Research for relation between lingual pressure and the function of speech/swallowing

(3) Research Achievements

A) Original Papers (including Case Reports)

B) Review
C) Publications

D) Other Publications

E) Presentation at Scientific Meeting
4: Contrast agents used in the videofluoroscopic swallowing study: Konishi M. Nagasaki T. Yasuhara Y. Tanimoto K.: 18th International Congress of Dento-maxillofacial Radiology (Hiroshima), 2011
5: Visualization of Rice Swallowing: Konishi M. Nagasaki T. Yasuhara Y. Tanimoto K.: 2th Joint Scientific meeting in Dentistry (Surabaya), 2011
6: Are freeze infusion of root vegetables suitable as a dysphagia diet? : Nagasaki T, Konishi M,
Hirai T, Kimura H, Yasuhara A, Kayashita J, Nakamura S, Sakamoto H, Tanimoto T:
Dysphagia Research Society 19th Annual Meeting (San Antonio, USA), 2011.

7: The swallowing dynamic state of the freeze infusion of foods: Tanimoto K., Nagasaki T.,
Konishi M., Hirai T., Yamagata H., Kayashia J., Yasuhara Y., Kimura H., Nakatsu S.,
Sakamoto H. ‘The 23rd annual meeting of the Society of Japanese Clinical dysphagia
Research. (Hiroshima), 2011.

8: The analysis of the oral internal pressures during sucking and swallowing movement:
a trial
clinical measuring instrument for oral internal pressures: Fukada M., Amano H.,
Nagasaki T.,
Hara K., Sugiyama M., Tanimoto K. : Hiroshima University Dental Society
(Hiroshima), 2011.
Central Clinical Sections, Center of Oral Clinical Examination

(1) Staffs and Students

Director: Hidemi Kurihara
Associate Professor: Ikuko Ogawa (Clinic)
Research Associate: Tomoaki Shintani, Masae Kitagawa
Technician: Keiko Banno
Intern: Toshinori Ando

(2) Main Research Activities

1: Clinical study on endodontal-periodontal therapy.
2: Clinicopathological study on head and neck lesions.
3: Developmental study of treatment to dysgeusia.
4: Study on test and treatment in metal allergy and dry mouth.
5: Molecular pathological study on proliferation and development of oral squamous cell carcinoma.
6: Study on molecular target therapy to oral cancer targeted with VEGFR and EGFR.
7: Study on function of cementoblast specific genes in human cementoblast.

(3) Research Achievements

A) Original Papers (including Case Reports)


B) Review


C) Publications


D) Other Publications


E) Presentation at Scientific Meeting


2: Trial of selective antibiotics therapy for radicular cystic lesion - Embodiment of the concept called the biological endodontic treatment - : Kurihara H., Uchida Y., Kitamoto Y., Shiba H., Kawaguchi H., Ogawa I., Shintani T., Kitagawa M.: The 44th Meeting of Hiroshima University Dental Society (Hiroshima), 2011.


5: The reality of dental metal allergy – From the result of patch test in Dental Departments, Hiroshima University Hospital- : Kitagawa M., Ando T., Shintani T., Ogawa I., Kurihara H.: The 50th Annual Meeting of Hiroshima Dental Association and the 95th Annual Meeting of Hiroshima University Dental Society (Hiroshima), 2011.


11: Tumor of the parotid (Myoepithelial carcinoma, invasive, ex pleomorphic adenoma).: Ogawa I., Takata T., Mizobuchi K., Morito T.: The 57th Meeting of Hiroshima Pathological Conference (Hiroshima), 2011.


21: A case of osseous dysplasia arising bilaterally in the mandible that long-term progress observation was performed before extraction:- Hamada M., Kanda T., Ando T., Ogawa I., Toratani S., Okamoto
2011


F) Special lectures in academic meetings


3: Special Lecture: Topics of Oral Squamous Cell Carcinoma; Recent Concept of Diagnosis of Precancerous Lesions and Research on the New Factors related to Invasion and Metastasis: Ogawa I.: Histopathological Seminar of Yamaguchi University Graduate School of Medicine (Ube), 2011.

(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

1: Grants-in-Aid for Scientific Research (Young Scientists (B)): Shintani T.: The role of FGF binding protein/HBp17 of cancer stem cells in oral cancer and an application for the molecular target therapy. No. 22791982. 1,200,000 yen

2: Grants-in-Aid for Scientific Research (Young Scientists (B)): Kitagawa M.: Functional analysis of cementoblast maker gene, f-spodin. No. 22791767. 2,080,000 yen


(5) Academic Awards, etc.

(6) Patents

Return to Contents
Central Clinical Sections, Dental Technicians Section

(1) Staff and Students

Director of Dental Technicians Section : Hiroki Nikawa (Prof.)
Chief Dental Technician : Hirotaoka Okura
Supervisor Dental Technician : Masanobu Yamamoto, Eisaku Habu, Yoshihiro Otani, Meiji Yamamoto, Ryoji Kato
Dental Technician : Syougo Iwaguro

(2) Main Research Activities

1: Management of the patients’ information by the use of implanted devices in the denture.
2: Radioprotective prostheses for irradiation therapies
3: Clinical analysis of superstructure of implant.
4: Esthetic dentistry
5: Accuracy of castings
6: Information processing in the dental laboratory

(3) Research Achievements

A) Original Papers (including Case Reports)

B) Review

C) Publications

D) Other Publications

E) Presentation at Scientific Meeting


2: Influence of surface burning conditions on bonding between zirconia ceramic material and veneering porcelain. : Syougo Iwagura, Saiji Shimoe, Takahiro Satoda, Nozomi Tsumura, Yuji Chiba : Annual Meeting of Nippon Academy of Dental Technology, The 6th Cyugoku-Shikoku regional meeting (Tokushima), 2011.11.

(4) Status of Receiving Grants-in Aid for Scientific Research, etc.
(5) Academic Awards, etc.

(6) Patents
Central Clinical Sections  
(Dental Hygiene Section)

(1) Staff and Students

Director of Dental Hygiene Section : Hidemi Kurihara  
Chief Dental Hygienist : Hiroko Tamura  
Supervisor Dental Hygienists : Yoriko Iwasaki, Miyuki Nakaoka  
Dental Hygienists : Miho Yoneda, Tomoko Hatakeyama, Kayo Kajitani, Kanako Matsui,  
Megumi Takamoto, Tomoko Tokikazu, Kanako Yano(Till June), Kana Dainobu, Naomi Hara,  
Miho Okada, Ayumi Kouchi, Itsuka Kouno, Atsuko Waka(Till May, From Jury),  
Chieko Kawai, Yukiko Nagatani, Yumi Irie, Yurie Nakano  
Dental Assistants : Yuri Ota, Yuka Tamamoto, Hisako Ozaki, Mayumi Yatabe

(2) Main Research Activities

1 : A study about the dentistry health guidance that dental hygienist performs.  
2 : A study about improvement of local dentistry health.  

(3) Research Achievements

A) Original Papers (including Case Reports)

1 : A case of vertical bone augmentation using interconnective porous hydroxyapatite  
ceramics and titanium mesh tray: Ninomiya Y, Takechi M, Ohta K, Ono S, Okui G, Ohta A,  
2 : A Case Report of Prothodontic Reconstruction Using Dental Implants for the Edentulous Patient with  
Severe Gagging Reflex: Ono S, Takechi M, Harada K, Ohta K,  
4 : A Case of Recovery with Horizontal Bone Augmentation Using Interconnective Porous Hydroxyapatite  
Ceramics(NEOBONE\textsuperscript{R}) and Titanium Mesh Tray:Kubozono K, Takechi M, Ono S, Hujimoto S,  
2011

B) Review

C) Publications

D) Other Publications

E) Presentation at Scientific Meeting


4: A qualitative research using with SCAT (Step for Coding and Theorization) for Dental clinical training: Taiji OBAYASHI, Hiromi NISHI, Masaru OHARA, Yoshiharu TANAKA, Tomoe SASAKI, Kayo KAJITANI, Yukiko NAGATANI, Norihiro TAGUTI, Testuji OGAWA: The 30th Meeting of Japanese dental Education Association (Tokyo), 2011.07.17

5: case example that a mouth ulcer was improved by the cooperation with the dental hygienist, and got ingestion again: Kiyomi Kobayashi, Kayo Kajitani, youko sato: (Hiroshima) 2011.09.13


13: An attempt of doing oral management and rethinking about medically compromised patients on dental clinical training course in Hiroshima university hospital: Hiromi Nishi, Yoshiharu Tanaka, Kayo Kajitani, Taiji Obayashi, Masaru Ohara: Research Seminar in General Dental Medicine (Niigata), 2011.11.19-20


18: A qualitative research using questionnaire for Dental clinical training: Taiji OBAYASHI, Hiromi NISHI, Masaru OHARA, Yoshiharu TANAKA, Tomoe SASAKI, Kayo KAJITANI, Yukiko NAGATANI, Norihiro TAGUTI, Tetsuji OGAWA (Hiroshima), 2011.12

F) Special lectures in academic meetings

(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

1: Scientific research funds subsidy (encouragement study): Yoriko Iwasaki, Basic study on gene
expression about the gas production of periodontal disease bacteria and relations of the bad breath. encouragement study.23932002. 500,000 yen

(5) Academic Awards, etc.

(6) Patent
Dental Clinic

(1) Staff and Students

Director: Takamune Hino
Research Associate: Masaru Ohara

(2) Main Research Activities

1: Pathogenesis of the periodontal diseases
2: A study on the drug-resistant bacteria from nosocomial infection

(3) Research Achievements

A) Original Papers (including Case Reports)


B) Review

C) Publications

D) Other Publications

1. [Toothbrushing Great Strategy!] Ya! Admirable, (The information town pages which Hiroshima University students make.) : Takamune Hino ; THE WEEKLY PRESSNET
2. Special feature [How should have about the tooth?] Good Tooth Week : Takamune Hino ; Cue (Chugoku Newspaper, Higashihiroshima), November 2011

E) Presentation at Scientific Meeting

1. The green tea polyphenol (-)-epigallocatechin gallate precipitates salivary proteins.

F) Seminar, Workshop, etc.

1. Class about HIV infection for the dental practice staff : Takamune Hino ; Hiroshima prefecture dental association lecture (Hiroshima), November 2011

(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

1. Grants-in aid for scientific research: Takamune Hino: #21390557

(5) Academic Awards, etc.

(6) Patents
(1) Staff and Students

Director : Kazuo Tanne (Co.)
Professor : Hideaki Amano (Co.)
Research Associate : Kyou Hiasa (Co.), Masahiko Ohtsuka (Co.), Takeshi Tanaka
Technician : Tokue Yanagida (Co.)

(2) Main Research Activities

1: Research on development and management of hospital information system.
2: Research on Medical Informatics.

(3) Research Achievements

A) Original Papers (including Case Reports)

1 : The degradation factors of authenticity in medical record and way to solve the problems on them: Hidehiko TSUKUMA, Kiyomu ISHIKAWA, Takeshi TANAKA and Minoru IKEUCHI: Proceedings of “The Liaison Conference of Information Management Departments in University Hospitals 2011 (Kagawa)” pp. 153-156, 2011.

B) Review

C) Publications

D) Other Publications

E) Presentation at Scientific Meeting

1: Basic requirements to manage user access control list for sharing electronic health record with medical facilities: Takeshi TANAKA et al.: Japan Association for Medical Informatics Spring Conference 2011 (Chiba), 2011.


(4) Status of Receiving Grants-in Aid for Scientific Research, etc.

(5) Academic Awards, etc.

(6) Patents

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