

November 7th, Saturday, ~ November 21st, Saturday

Keynote Lecture

(Video On-demand distribution)

KL Porphyromonas gingivalis interactions with epithelial cells in the community context

Dr. Richard J Lamont

(Department Oral Immunology & Infectious Diseases, University of Louisville, School of Dentistry)

Greeting from IADR President

(Video On-demand distribution)

G

Dr. Pamela Den Besten

(Department of Orofacial Sciences, School of Dentistry, University of California San Francisco)

Special Lecture

(Video On-demand distribution)

SL Tubular Dentin Regeneration and Its Clinical Application

Dr. Joo-Cheol Park

(Laboratory for the Study of Regenerative Dental Medicine, Department Oral Histology-Developmental Biology, School of Dentistry, Seoul National University)

Symposium I~III, Rising Scientist Session

(Lecture;Video On-demand distribution / Q & A;Live streaming)

November 7th, Saturday

10:00-12:00 Symposium I

“At the front-line: Etiology of periodontitis”

Moderator: Dr. Kazuyuki Ishihara

(Department of Microbiology, Tokyo Dental College, Tokyo, Japan)

Moderator: Dr. Yoshihisa Yamashita

(Section of Preventive and Public Health Dentistry, Division of Oral Health,

Growth and Development, Faculty of Dental Science, Kyushu University, Fukuoka, Japan)

SI-1 Bacterial composition of overall oral microbiota associated with periodontal disease and health.

Dr. Toru Takeshita

(Section of Preventive and Public Health Dentistry, Faculty of Dental Science, Kyushu University)

SI-2 The significant role of *Porphyromonas gingivalis* “Gingipains” as a virulence factor on periodontal inflammation

Dr. Masaaki Nakayama¹, Dr. Naoya Ohara²

(¹Department of Microbiology, Graduate school of Medicine, Dentistry and Pharmaceutical Sciences,

Okayama University, ²Advanced Research Center for Oral and Craniofacial Sciences (ARCOCS),

Dental School, Okayama University)

SI-3 Periodontitis as an “osteimmune” disease

Dr. Masayuki Tsukazaki

(Department of Immunology, Graduate School of Medicine and Faculty of Medicine,

The University of Tokyo)

SI-4 Epithelial barrier breakdown by *Porphyromonas gingivalis*

Dr. Atsuo Amano, Dr. Hiroki Takeuchi

(Department of Preventive Dentistry, Graduate School of Dentistry, Osaka University)

13:00-14:30 Rising Scientist Session

“Neuroscience”

Moderator: Dr. Tazuko Goto

(Department of Oral and Maxillofacial Radiology, Tokyo Dental College, Tokyo, Japan)

RS-1 Factors secreted from dental pulp stem cells show multifaceted benefits for Synergistically Regenerate Transected Rat Peripheral Nerves by Altering Macrophage Polarity.

Dr. Fumiya Kano

(Department of Tissue regeneration Institute of Biomedical Sciences, Tokushima University Graduate School)

RS-2 Phenotypic and neuroplastic changes in trigeminal nociceptive pathways following trigeminal nerve injury

Dr. Ayano Katagiri

(Department of Oral Physiology, Osaka University Graduate School of Dentistry, Suita, Japan)

RS-3 The human brain and mastication; broad impact on systemic functions

Dr. Jun Miyamoto

(Department of Maxillofacial Orthognathics, Graduate School of Medical and Dental Sciences,
Tokyo Medical and Dental University (TMDU))

November 8th, Sunday

10:00-12:30 Symposium II

“Future is now! Stem cell revolution in hard and soft tissue engineering”

Moderator: Dr. Toshifumi Azuma

(Department of Biochemistry, Tokyo Dental College, Tokyo, Japan)

Moderator: Dr. Shinsuke Oba

(Department of Cell Biology, Institute of Biomedical Sciences, Nagasaki University)

SII-1 Generation of skeletal cells from pluripotent stem cells

Dr. Shinsuke Oba

(Department of Cell Biology, Institute of Biomedical Sciences, Nagasaki University)

SII-2 Establishment of an *in vitro* culture system for tenogenic/ligamentogenic differentiation using *ScxGFP* iPS cells

Dr. Chisa Shukunami

(Department of Molecular Biology and Biochemistry, Graduate School of Biomedical and Health Sciences, Hiroshima University)

SII-3 Classification and pathological mechanisms of Craniosynostosis based on the differentiation pattern of iPS cells

Dr. Sachiko Iseki

(Section of Molecular Craniofacial Embryology, Tokyo Medical & Dental University Graduate School of Medical and Dental Sciences)

SII-4 Molecular mechanisms of craniosynostosis in Apert syndrome.

Dr. Takashi Nakamura¹, Dr. Hiroyuki Ogura²

(¹Department of Biochemistry/Research Branding Project, Tokyo Dental College.,
Department of Orthodontics, Tokyo Dental College.,

²Department of Biochemistry/Oral Health Science Center/Research Branding Project, Tokyo Dental College.)

SII-5 Application of iPS cell technologies to treat skeletal disease

Dr. Akihiro Yamashita, Dr. Noriyuki Tsumaki

(Centre for iPS cell Research and Application (CiRA), Kyoto University, Japan)

13:00-15:00 Symposium III

“Pathophysiological approach from oral function to systemic diseases”

Moderator: Dr. Yoshiyuki Shibukawa

(Department of Physiology, Tokyo Dental College, , Tokyo, Japan)

Moderator: Dr. Naofumi Uesaka

(Department of Cognitive Neurobiology, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University, Tokyo, Japan)

SIII-1 Taste renin-angiotensin system may contribute to the maintenance of sodium homeostasis.

Dr. Noriatsu Shigemura

(Section of Oral Neuroscience, Graduate School of Dental Science, Kyushu University.,
Research and Development Center for Five-Sense Devices, Kyushu University.)

SIII-2 Pathophysiology of SB: challenges from human and animal studies

Dr. Takafumi Kato

(Osaka University Graduate School of Dentistry, Department of Oral Physiology)

SIII-3 Common pathophysiological features in burning mouth syndrome and irritable bowel syndrome

Dr. Masamichi Shinoda

(Department of Physiology, Nihon University School of Dentistry)

SIII-4 *In vivo* Dynamics of Dental Tissue Regeneration

Dr. Toshihide Mizoguchi

(Oral Health Science Center, Tokyo Dental College, Tokyo, Japan)

Poster Presentation

Dental Materials 1: Ceramic-based Materials

001: Wear Resistance of Novel Machinable Glass Ceramics

S. Kariya, T. Azuma, F. Fusejima
R&D Dept., GC Corporation, Tokyo, JAPAN

Dental Materials 4: Adhesion

002: Evaluation of bonding layer durability on 2-step self-etch adhesive

K. FUJIMORI, K. HIRANO, F. FUSEJIMA
RESEARCH & DEVELOPMENT, GC CORPORATION, TOKYO, Japan

003: Bonding properties of acrylic resin to zirconia and polyaryletherketone (PAEK)

T.-Y. PENG¹, S. SHIMOE², D.-J. LIN¹, M. KAKU²
¹School of Dentistry, College of Dentistry, China Medical University, Taiwan R.O.C, ²Department of Anatomy and Functional Restorations, Hiroshima University Graduate School of Biomedical & Health Sciences, Hiroshima, Japan

004: Bond strength between one-step adhesives and dentin after cyclic loading

T. EGOSHI¹, Y. TAIRA¹, K. SOENO², K. KAIDA¹, S. KUBO¹, H. MURATA³
¹Division of Cariology and Restorative Dentistry, Department of Prosthetic Dentistry, Nagasaki University, Nagasaki, Japan, ²Department of Applied Prosthodontics, Nagasaki University, Nagasaki, Japan, ³Department of Prosthetic Dentistry, Nagasaki University, Nagasaki, Japan

005: Influence of saliva contamination on adhesion performance of adhesive resin cement

S. MURAKAMI, K. HIRANO, F. FUSEJIMA
RESEARCH & DEVELOPMENT, GC CORPORATION, TOKYO, Japan.

Cariology Research-Demineralization/Remineralization

006: Evaluation of Dentin Anti-Demineralization potential of S-PRG Containing Self-Adhesive Resin Cement

S. ThanNaing¹, N. Hiraishi¹, A. Abdou^{1,3}, J. Tagami¹
¹Cariology and Operative Department, Tokyo Medical and Dental University, Tokyo, JAPAN, ²Department of Conservative Dentistry, University of Dental Medicine Mandalay, Mandalay, Chanmyathazi, MYANMAR, ³Biomaterials Department, Faculty of Dentistry, Modern University for Technology and Information, Cairo, EGYPT

007: Preparation of Filler-Dispersed Resin Composite for Additive Manufacturing

P. KARNTIANG¹, H. IKEDA², Y. NAGAMATSU², H. SHIMIZU²
¹Division of Operative Dentistry, College of Dentistry, Rangsit University, Pathum Thani, Thailand, ²Division of Biomaterials, Department of Oral Functions, Kyushu Dental University.

008: Enamel Remineralization of TCP with Fluoride in Toothpaste: EPMA Study

H. HAMBA, H. ISHIKAWA, Y. MIYAYOSHI, K. NAKAMURA, T. MURAMATSU
Department of Operative Dentistry, Cariology and Pulp Biology, Tokyo Dental College, Tokyo, Japan

009: EVALUATION OF THE EFFECT OF ZINC-CONTAINING ORAL MATERIALS ON REMINERALIZATION USING IN-AIR MICROBEAM PIXE/PIGE

M. Sakurai¹, Y. Matsuda², K. Okuyama³, H. Yamamoto², M. Hayashi², T. Saito¹

¹Division of Clinical Cariology and Endodontology, Department of Oral Rehabilitation, Health Sciences University of Hokkaido, Tobetsu-cho, Ishikari-gun, Hokkaido, JAPAN, ²Department of Restorative Dentistry and Endodontology, Osaka University Graduate School of Dentistry, Osaka, JAPAN, ³Department of Dental Materials Science, Asahi University School of Dentistry, Mizuho, Gifu, JAPAN

Cariology Research-Fluoride & Ca-based Products

010: Dynamics of Ions Artificially Introduced into Caries-affected Dentin

K. NAITO¹, H. YAMAMOTO¹, Y. MATSUDA², K. OKUYAMA³, M. HAYASHI¹

¹Department of Restorative Dentistry and Endodontology, Osaka University Graduate School of Dentistry, ²Division of Clinical Cariology and Endodontology, Department of Oral Rehabilitation, School of Dentistry, Health Sciences University of Hokkaido, ³Department of Dental Materials Science, Division of Oral Functional Sciences and Rehabilitation, Asahi University School of Dentistry

Dental Materials 2: Polymer-based Materials

011: Physical properties of Resorbable P(LA/CL) bilayer membrane for GBR

Y. SAKAGUCHI, E. ARIMA, K. YAMANAKA, F. FUSEJIMA

GC Corporation, Tokyo, Japan

Prosthodontics Research

012: Influence of Molding Angle on 3D-printed Partial Denture Framework

H. KOBAYASHI¹, A. TASAKA¹, T. SHIMIZU¹, S. HIGUCHI², S. YAMASHITA¹

¹Department of Removable Partial Prosthodontics, Tokyo Dental College, ²Wada Precision Dental Laboratories Corporation

Oral Health Research

013: Microbicidal effect and storage stability of neutral electrolyzed water-based gels

Y. NAGAMATSU¹, H. NAGAMATSU², H. IKEDA¹, H. SHIMIZU¹

¹Division of Biomaterials, Department of Oral Functions, Kyushu Dental University, Fukuoka, Japan,

²Division of Comprehensive Dentistry, Department of Oral Functions, Kyushu Dental University, Fukuoka, Japan

014: A pilot study of effects on Dentifrice Containing Neem for Oral Malodor, Plaque Adhesion, Gingival Inflammation and Oral Bacteria

M. YASUI, K. SHINADA

Department of Preventive Oral Health Care Sciences, Tokyo Medical and Dental University, Tokyo, Japan

Microbiology/Immunology

015: Antimicrobial effects and mechanical properties of acrylic resin containing aPIZAS

K. INABA¹, H. WATANABE¹, Y. WADA¹, S. WATANABE¹, H. SASAKI¹, H. HIRAMINE², M. SASAKI³, T. NIHEI¹, N. HAMADA¹

¹Department of Oral Science, Kanagawa Dental University, Yokosuka, Japan, ²Department of Highly

Advanced Stomatology, Yokohama Clinical Education Center of Kanagawa Dental University,
³Nissho Chemistry Corporation

016: Effects of S-PRG eluate on bacterial properties related to oral malodor

S. OMAGARI¹, M. YONEDA¹, N. SUZUKI², D. GRENIER³, S. YAMAMOTO¹, K. YAMADA¹, J. HATAKEYAMA¹, H. MORITA⁴, C. KOGA⁵, T. HIROFUJI¹

¹Section of General Dentistry, Department of General Dentistry, Fukuoka Dental College, Fukuoka, Japan, ²Section of Oral Public Health, Department of Preventive and Public Health, Fukuoka Dental College Fukuoka, Japan, ³Groupe de Recherche en Ecologie Buccale, Faculte de medecine dentaire, Universite Laval, Quebec, Canada, ⁴The Center for Visiting Dental Service, Department of General Dentistry, Fukuoka Dental College, Fukuoka, Japan, ⁵Center for Oral Diseases, Fukuoka Dental College Fukuoka, Japan

017: Evaluation of anti-biofilm effects of bio-active GIC using a bioreactor

T. KOHNO, Y. LIU, F. DENG, R. TSUBOI, H. KITAGAWA, S. IMAZATO

Department of Biomaterials Science, Osaka University Graduate School of Dentistry, Suita, Japan

018: Streptococcus mutans inhibition by toothbrush monofilament with surface pre-reacted glass-ionomer

S. MATAYOSHI, T. KITAMURA, M. OTSUGU, R. NOMURA, K. NAKANO

Department of Pediatric Dentistry, Osaka University Graduate School of Dentistry, Japan

019: Comparison of microbiome organized on denture base materials and hydroxyapatite

Y. NEZU¹, M. RYU¹, K. ISHIHARA², T. UEDA¹

¹Removable Prosthodontics & Gerodontology, Tokyo Dental College, Tokyo, Japan, ²Microbiology, Tokyo Dental College

Cariology Research-Microbiological Studies/Biofilm

020: ABC transporter activities in biofilm formation by *Streptococcus mutans*

K. GOTO, M. MATSUMOTO-NAKANO

Department of Pediatric Dentistry, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan

Microbiology/Immunology

021: Inhibitory Effect of Cyclodextran on Glucosyltransferase B in *Streptococcus mutans*

H. ASAUMI, K. GOTO, M. MATSUMOTO-NAKANO

Department of Pediatric Dentistry, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan

022: The effects of fatty acid salts against *Streptococcus mutans* biofilm

A. KURAHASHI, K. WATANABE, T. SATO, K. INABA, H. SASAKI, N. HAMADA

Department of Oral Science, Graduate School, Kanagawa Dental University

023: Evaluation of collagen-binding properties of killed *Streptococcus mutans* strains

Y. SUEHIRO, S. MATAYOSHI, M. OTSUGU, R. NOMURA, K. NAKANO

Department of Pediatric Dentistry, Osaka University Graduate School of Dentistry, Osaka, Japan

024: Screening of *S. salivarius* isolates with anti-caries activities

H. NAKADE¹, S. ALI², D. DUFOUR², C. LEVESQUE², S. GONG²

¹Faculty of Dentistry, Tokyo Medical and Dental University, ²Faculty of Dentistry, University of Toronto

025: Characteristics of anti-periodontal bacterial activity in culture supernatant of probiotic

T. KAWAI¹, R. SHIN², Y. ITO², S. IKAWA³, T. TANAKA³, T. OHSHIMA¹

¹Department of Oral Microbiology, Tsurumi University School of Dental Medicine, Kanagawa, Japan,

²ALA Research Institute for Fermentative Microbes, Tokyo, Japan, ³Technology Research Institute of Osaka Prefecture, Osaka, Japan

Periodontal Research-Pathogenesis

026: Exploring for prevention of periodontal disease using products of the probiotic bacteria, genus *Lactobacillus* -Targeting the genus *Porphyromonas*-

Y. SAKAI, T. OHSHIMA, T. KAWAI

Tsurumi University Faculty of Dentistry Department of Dentistry

Microbiology/Immunology

027: *Gemella haemolysans* specifically inhibits the growth of *Porphyromonas gingivalis*

T. MIYOSHI¹, N. YOSHINARI², A. YOSHIDA¹

¹Department of Oral Microbiology, Matsumoto Dental University, Nagano, Japan, ²Department of Periodontology, Matsumoto Dental University, Nagano, Japan

028: *Fusobacterium nucleatum* metabolically integrates commensals and pathogens in oral biofilms

A. SAKANAKA¹, M. KUBONIWA¹, S. SHIMMA², S. MAYUMI¹, R. LAMONT³, E. FUKUSAKI², A. AMANO¹

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²Department of Biotechnology, Osaka University Graduate School of Engineering, Osaka, Japan,

³Department of Oral Immunology and Infectious Diseases, School of Dentistry, University of Louisville, Louisville, KY, USA

029: Analysis of novel genotypes of Mfa1 fimbriae in *Porphyromonas gingivalis*

K. SAKAE¹, K. NAGANO², Y. HASEGAWA¹

¹Department of Microbiology, School of Dentistry, Aichi Gakuin University, Aichi, Japan,

²Department of Microbiology, School of Dentistry, Health Sciences University of Hokkaido, Hokkaido, Japan

030: Role of hyalin-like protein in biofilm formation by *Capnocytophaga ochracea*

T. WARITA¹, K. SHIBAYAMA¹, E. KOKUBU¹, D. KITA², Y. KIKUCHI¹, K. ISHIHARA¹

¹Department of Microbiology, Tokyo Dental College, Tokyo, Japan, ²Department of Periodontology, Tokyo Dental College, Tokyo, Japan

031: The periodontopathic bacterium *Fusobacterium nucleatum* induced proinflammatory cytokine production by human respiratory epithelial cells and in the lower respiratory organs in mice

K. IMAI¹, N. WATANABE^{1,2}, S. YOKOE^{1,2}, S. SATO²

¹Department of Microbiology, Nihon University School of Dentistry, ²Department of Periodontology, Nihon University School of Dentistry

032: IgA Nephropathy-like Lesion Development in Rat Caries Model

S. NAKA¹, K. WATO², T. MISAKI³, Y. NAGASAWA⁴, S. ITO⁵, R. NOMURA², M. MATSUMOTO-NAKANO¹, K. NAKANO²

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and Pharmaceutical Sciences, Okayama, Japan, ²Department of Pediatric Dentistry, Division of Oral Infection and Disease Control, Osaka University Graduate School of Dentistry, Suita, Osaka, Japan, ³Division of Nephrology, Seirei Hamamatsu General Hospital, Hamamatsu, Japan, ⁴Division of Kidney and Dialysis, Department of Internal Medicine, Hyogo College of Medicine, Nishinomiya, Japan, ⁵Department of Nephrology and Endocrinology, National Defense Medical College, Tokorozawa, Japan

033: Effects of *Helicobacter pylori* Infection in Caries-induced Rats

T. KADOTA, Y. OGAYA, R. NOMURA, K. NAKANO

Department of Pediatric Dentistry, Osaka University Graduate School of Dentistry, Osaka, Japan

034: Prevalence of Specific *Streptococcus mutans* Harbored by Non-alcoholic Steatohepatitis Patients

K. TABATA¹, S. NAKA¹, S. TONOMURA^{2,3,4}, K. NAKANO⁵, M. MATSUMOTO-NAKANO¹

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Pediatric Oral Health Research

035: The Initiation and development of oral microbiome formation in Japanese healthy infants

A. SAKURAI, H. HOMMA, N. NAGAI, T. OTA, S. SHINTANI

Department of Pediatric Dentistry, Tokyo Dental College, Tokyo, Japan

Periodontal Research-Pathogenesis

036: Omics analysis defines differences in microbial community structure between peri-implantitis and periodontitis

K. KOMATSU¹, Y. TAKEUCHI¹, T. SHIBA¹, T. WATANABE², M. SHIMOGISHI³, M. SHIBASAKI³, T. NEMOTO¹, T. KOYANAGI¹, S. KATAGIRI¹, T. IWATA¹

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037: Periodontal Bacteria Distribution in Child with Early Primary Tooth Loss

Y. MIYAI, S. NAKA, M. MATSUMOTO-NAKANO

Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan

Periodontal Research-Therapy

038: CTLA-4 Reduces Bone Resorption Through the Inhibition of Osteoclast Differentiation

S. NAKANE¹, K. IMAMURA¹, K. ISHIHARA^{2,3}, A. SAITO^{1,2}

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Periodontal Research-Pathogenesis

039: An immunohistochemical study on the expression of bioactive molecules in the mouse kidney in *P. gingivalis* LPS-induced diabetic nephropathy

K. KOICHIRO¹, Y. SAWA², T. FUJITA¹, S. TAMAOKI¹

¹Section of orthodontics Department of Oral Growth & Development, Division of Clinical Dentistry, Fukuoka Dental College, ²Department of Oral Function & Anatomy, Okayama University Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences

Oral Medicine & Pathology Research

040: Artepillin C regulates extracellular matrix gene expressions in human periodontal fibroblasts by DNA methylation

R. TAKAI¹, O. UEHARA², T. MORIKAWA³, K. YOSHIDA³, J. SATO³, Y. ABIKO³, T. OHTA¹

¹Advanced Research Promotion Center, Health Sciences University of Hokkaido, Hokkaido, Japan, ²Division of Disease Control and Molecular Epidemiology, Health Sciences University of Hokkaido, Hokkaido, Japan, ³Division of Oral Medicine and Pathology, Health Sciences University of Hokkaido, Hokkaido, Japan

Periodontal Research-Pathogenesis

041: Exosomes from human gingiva-derived MSCs inhibit periodontal bone loss

Y. NAKAO, T. FUKUDA, Y. WATANABE, C. HAYASHI, K. KAWAKAMI, M. TOYODA, H. YAMATO, T. SINJO, U. TANAKA, T. SANUI, F. NISHIMURA

Department of Periodontology, Division of Oral Rehabilitation, Faculty of Dental Science, Kyushu University, Fukuoka, Japan

042: PPAR γ is required for periodontal ligament cells to retain cemento/osteogenicity

H. YUAN¹, S. SUZUKI¹, A. SATO¹, T. YAMAMOTO¹, E. NEMOTO¹, M. SAITO², S. YAMADA¹

¹The Department of Periodontology and Endodontology, Tohoku University school of Dentistry, ²The Department of Operative Dentistry, Tohoku University school of Dentistry

Oral Medicine & Pathology Research

043: Role of IQGAP1- Flightless I interaction in collagen remodeling by fibroblast

K. NAKAJIMA¹, P. ARORA², C. MCCULLOCH²

¹Department of Pathology, Tokyo Dental College, Tokyo, Japan, ²Faculty of Dentistry, University of Toronto, Toronto, ON, Canada

Periodontal Research-Therapy

044: Amelogenin down-regulates MHC class II antigen presentation on macrophages.

K. YOTSUMOTO, T. SANUI, H. YAMATO, U. TANAKA, Y. NAKAO, Y. WATANABE, C. HAYASHI, T. FUKUDA, F. NISHIMURA

Department of Periodontology, Division of Oral Rehabilitation, Faculty of Dental Science, Kyushu University, Fukuoka, Japan

Periodontal Research-Pathogenesis

045: Adipose specific C-C motif chemokine ligand (CCL) 19 overexpression drives the mice to both insulin resistance and weight gain.

M. HAYASHI, M. IWASHITA, Y. NISHIMURA, T. SHINJO, T. ZEZE, T. SANO, A. YAMASHITA, F.

NISHIMURA

Department of Periodontology, Division of Oral Rehabilitation, Faculty of Dental Science, Kyushu University

Periodontal Research-Therapy

046: Characterization of the *PLAP-1-GFP/CreER* knock-in mouse

T. IWAYAMA¹, K. TOMITA¹, S. MATSUMOTO¹, M. IWASHITA¹, C. FUJIHARA¹, M. TAKEDACHI¹, S. YAMADA², S. MURAKAMI¹

¹Department of Periodontology, Osaka University Graduate School of Dentistry, Suita, Osaka, Japan,

²Department of Periodontology and Endodontology, Tohoku University Graduate School of Dentistry, Sendai, Miyagi, Japan

Implantology Research

047: Salivary Alpha-Amylase as a stress marker during dental implant surgeries

A. A. Sabbagh, H. Nakata, A. Abdou, K. Shohei, S. Kuroda

Tokyo medical and Dental University, Tokyo, JAPAN

Oral Medicine & Pathology Research

048: Regional differences in the density of Langerhans cells, CD8-positive T lymphocytes and CD68-positive macrophages

Y. OMINE

Iryouhoujin Syuuyuu-kai, Tsuchiura, Japan

Periodontal Research-Pathogenesis

049: Delayed Wound Healing after Tooth Extraction under Malnutrition

Y. ZHANG¹, H. IDEGUCHI¹, H. AOYAGI¹, K. YAMASHIRO¹, T. YAMAMOTO¹, M. NISHIBORI², S. TAKASHIBA¹

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Oral & Maxillofacial Surgery Research

050: Assessment of Facial Changes after Orthognathic Surgery Using Geometric Morphometrics

S. AL BOUGHA¹, H. NAKANO², K. YASUDA¹, T. YAMADA¹, I. TAKAHASHI³, Y. MORI¹

¹Section of Oral and Maxillofacial Surgery-Division of Maxillofacial Diagnostic and Surgical Science - Faculty of Dental Science, Kyushu University, ²Department of Dentistry and Oral Surgery, Division of Medicine for Function and Morphology of Sensory Organs, Faculty of Medicine, Osaka Medical College, ³Department of Orthodontics, Faculty of Dental Science, Kyushu University

051: Metformin inhibits oral cancer cell growth by altering glucose metabolism

S. LIU¹, J. WASHIO¹, N. TAKAHASHI¹

¹Division of Oral Ecology and Biochemistry, Department of Oral Biology, Tohoku University Graduate School of Dentistry, Sendai, Japan, ²Department of Head and Neck Oncology, West China Hospital of Stomatology Sichuan University, Chengdu, China

Oral Medicine & Pathology Research

052: *Sirtuin1* DNA hypermethylation may be a biomarker for malignant transformation

S. ISLAM, O. UEHARA, H. MATSUOKA, Y. ABIKO, I. CHIBA

Health Sciences University of Hokkaido

053: Role of EGFR-mediated MOB1 phosphorylation on Hippo pathway regulation

T. ANDO

Center of oral clinical examination, Hiroshima University Hospital, Hiroshima, Japan

054: Sema3A-AKT Axis In Salivary Gland And Adenoid Cystic Carcinoma Developments

T. FUJIMOTO¹, S. FUJII², T. KIYOSHIMA²

¹School of Dentistry, Kyushu University, ²Laboratory of Oral Pathology, Division of Maxillofacial Diagnostic and Surgical Sciences, Faculty of Dental Science, Kyushu University

Oral & Maxillofacial Surgery Research

055: Effect of Ethinyl Estradiol on Mandibular Condyle of Female Rats

S. YAKLAI, R. PECHAYCO, Y. ABE, A. TAKIZAWA, I. MIZOGUCHI, T. TAKAHASHI, M. CHIBA

Graduate School of Dentistry, Tohoku University

Craniofacial Biology Research

056: Histone methyltransferase SETDB1 negatively regulates PTH/PTHrP receptor in chondrocytes

P. THIHA, N. HIGASHIHORI, S. KANO, K. MORIYAMA

Department of Maxillofacial Orthognathics, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University

Stem Cell Biology Research

057: Generating MSC Spheroids Recovers Stemness Characteristics for Cortical Bone Formation

Y. OHORI, K. NIIBE, H. EGUSA

Division of Molecular and Regenerative Prosthodontics, Tohoku University Graduate School of Dentistry, Sendai, Miyagi, Japan

Craniofacial Biology Research

058: The bHLH transcription factor HAND1 is involved in cortical bone volume through the regulation of collagen expression

N. FUNATO¹, Y. TAGA³, L. E. LAURIE¹, C. TOMETSUKA³, M. KUSUBATA³, K. OGAWA-GOTO³

¹Department of Signal Gene Regulation, Tokyo Medical and Dental University, Tokyo, Japan,

²Research Core, Tokyo Medical and Dental University, Tokyo, Japan, ³Nippi Research Institute of Biomatrix, Ibaraki, Japan

Mineralized Tissue

059: Oxygen tension-dependent expression of monocarboxylate transporter-1 is a prerequisite event for oxidative death of chondrogenic ATDC5 cells induced by interleukin-1 β .

M. TANAKA¹, Y. MIYAMOTO¹, K. YOSHIMURA¹, K. SASA¹, K. IKEZAKI^{1,2}, T. SHIROTA², R. KAMIJO¹

¹Department of Biochemistry, Showa University School of Dentistry, Tokyo, Japan, ²Department of Oral and Maxillofacial Surgery, Showa University School of Dentistry, Tokyo, Japan

Pediatric Oral Health Research

060: Effects of Anticancer Drugs on Mouse Tooth Germ Development

Y. TSUNODA¹, S. NAKA¹, R. OKAWA², K. NAKANO², M. MATSUMOTO-NAKANO¹

¹Department of Pediatric Dentistry, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Japan, ²Department of Pediatric Dentistry, Division of Oral Infection and Disease Control, Osaka University Graduate School of Dentistry, Suita, Osaka, Japan

Mineralized Tissue

061: Trehalose, a natural sweetening compound, suppresses osteoclast differentiation.

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062: Computational chemistry of phospholipid mineralization

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063: Histological study of dentin bridge formed beneath MTA after pulpotomies in rat molars

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Implantology Research

064: The effect of micro-sized titanium on osteoblast differentiation

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Dental Materials 5: Biocompatibility, Bioengineering and Biologic Effects of Materials

065: Comparison in physical properties of synthetic carbonate apatite and allogeneic bone graft substitute

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066: Novel bio-active adhesive monomer CMET stimulates human dental pulp stem cells differentiation toward odontoblast phenotype: a comparative study

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067: Hydrogel-based biomechanical environment for understanding Meckel's cartilage fate

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Diagnostic Sciences

068: Evaluation of Interleukin – 8 In Human Dental Pulp

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Pulp Biology & Regeneration Research

069: Interaction analysis of protein S100A7 in dental pulp tissue

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070: Lyve-1+ Pulpal Macrophages: M2-polarization and Response to Cavity Preparation

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071: DNA methylation of *GJA1*, *BMP2* and *BMP4* in a human cementoblast cell line induced by lipopolysaccharide.

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072: Effects of Non-thermal atmospheric pressure plasma on human deciduous dental pulp fibroblast-like cells

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Dental Materials 5: Biocompatibility, Bioengineering and Biologic Effects of Materials

073: Effect of Lithium Carbonate on the Healing of Apical Periodontitis

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Pulp Biology & Regeneration Research

074: Large-conductance Ca²⁺-activated K⁺ Channels in Human Cementoblasts

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075: Activation of CGRP receptors increased intracellular cAMP level in odontoblasts

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076: Plasma membrane Ca²⁺-ATPase regulates dentin formation and mineralization.

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Microbiology/Immunology

077: Functional expression of mechanosensitive ion channel in mouse osteoblasts

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Pharmacology/Therapeutics/Toxicology

078: Activation of mechano-sensitive ion channels in cancer cells establishes paracrine network via endothelin signaling

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Neuroscience

079: Mechanical stimulation-induced intercellular communication in trigeminal ganglion neurons

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080: Piezo1 channel activation evokes mechanosensitive Ca²⁺ signaling in human odontoblast

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Oral & Maxillofacial Surgery Research

081: Effects of preemptive analgesia with intravenous acetaminophen on postoperative pain relief in patients undergoing third molar surgery: a prospective, single-blind, randomized controlled trial

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Diagnostic Sciences

082: Diagnostic and Prognostic Applications of Artificial Intelligence-based Radiology in Head and Neck Region

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e-Oral Health Network

083: Revolutionized Concept of Digitalizing Dental Treatment Contents using Machine Learning

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Education Research

084: Evaluation of simulation training courses on basic clinical skills for geriatric dentistry for trainee dentists

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Behavioral, Epidemiologic and Health Services Research

085: Needs Of Dentists During The Covid-19 Pandemic In Nepal

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086: Oral conditions matter for general health of community-dwelling elderly population

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Oral Health Research

087: Comparative study of plaque removal effect on Japanese commercial toothbrushes.

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088: Comparing the oral health-related quality of life of people with diabetes and people without diabetes at a Tertiary Hospital in Nigeria

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Prosthodontics Research

089: Survey Of Smile Satisfaction And Desired Treatments Among Medical And Dental Students.

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