

November 17th, Saturday, Main Hall

8:50-10:00 Symposium I “New Era of Oral Medicine“

Main Hall, 2F

Organizer/ Moderator: Dr. Seiji Nakamura
(Section of Oral and Maxillofacial Oncology, Division of Maxillofacial Diagnostic
and Surgical Sciences, Faculty of Dental Science, Kyushu University)

Organizer/ Moderator: Dr. Yoshimasa Kitagawa
(Graduate School of Dental Medicine, Division of Oral Medical Science,
Division of Oral Pathobiological Science, Hokkaido University)

SI-1 New insights into salivary gland disease associated with systemic diseases

Dr. Seiji Nakamura
(Section of Oral & Maxillofacial Oncology, Division of Maxillofacial Diagnostic
& Surgical Sciences, Faculty of Dental Science, Kyushu University)

SI-2 The cutting edge of pemphigoid ~close relationship between dentists and dermatologists reveals the
pathogenesis and a novel diagnostic method~

Dr. Yoshimasa Kitagawa
(Department of Oral diagnosis and Medicine,
Graduate School of Dental Medicine, Hokkaido University)

SI-3 Burning mouth syndrome: Is it a neuropathic condition?

Dr. Yoshiki Imamura
(Department of Oral Diagnostic Sciences, Nihon University School of Dentistry)

SI-4 Role of regenerative medicine in medical treatment

Dr. Hideharu Hibi
(Department of Oral and Maxillofacial Surgery, Nagoya University Graduate School of Medicine)

10:15-11:15 Special Lecture I

Main Hall, 2F

Moderator: Dr. Satoshi Imazato

(Department of Biomaterials Science, Osaka University Graduate School of Dentistry)

SL-1 Factors related to the tooth retention and tooth loss in Korean elderly adults aged 55 years and more

Dr. Jin-Bom Kim
(President of Korean Division, IADR, Prof. Department of Preventive and Community Dentistry,
School of Dentistry, Pusan National University, Yangsan, Korea)

13:20-14:30 Symposium II

Main Hall, 2F

“Current Topics of Prosthodontic Treatment using Partial Dentures “

Organizer/ Moderator: Dr. Atsuro Yokoyama
(Graduate School of Dental Medicine, Division of Oral Functional Science,
Oral Functional Prosthodontics, Hokkaido University)

SII-1 New Design Concept and Material Selection in Removable Partial Prosthodontics

Dr. Noriyuki Wakabayashi

(Director of Dental Hospital, Professor, Department of Removable Partial Prosthodontics,
Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University (TMDU))

SII-2 Prognosis and Efficacy of Partial Denture Treatment

Dr. Atsuro Yokoyama

(Graduate School of Dental Medicine, Division of Oral Functional Science,
Oral Functional Prosthodontics, Hokkaido University)

SII-3 Removable partial dentures supported by dental implants.

Dr. Kiyoshi Koyano

(Section of Implant and Rehabilitative Dentistry, Division of Oral Rehabilitation,
Faculty of Dental Science, Kyushu University)

November 18th, Sunday, Main Hall

9:00-10:00 Symposium III

Main Hall, 2F

“Frontiers of adhesive dentistry: new discoveries promise a bright future “

Organizer/ Moderator: Dr. Mikako Hayashi
(Department of Restorative Dentistry and Endodontology,
Osaka University Graduate School of Dentistry)

SIII-1 Creating the “Super Tooth” by the adhesive technology

Dr. Junji Tagami
(Cariology and Operative Dentistry Department, Division of Oral Health Sciences,
Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University.)

SIII-2 Incoming bond strength evaluation - Change from quantitative examination to qualitative investigation -

Dr. Yoichiro Nara
(Department of Adhesive Dentistry, School of Life Dentistry at Tokyo,
The Nippon Dental University)

SIII-3 Adhesion to new CAD/CAM composite resin block

Dr. Kazuhiro Hikita
(Division of Digital Dentistry, Department of Oral Rehabilitation,
School of Dentistry, Health Sciences University of Hokkaido)

10:15-11:15 Special Lecture II

Main Hall, 2F

Moderator: Dr. Kazuhisa Yamazaki
(Laboratory of Periodontology and Immunology, Division of Oral Science for Health Promotion,
Niigata University Graduate School of Medical and Dental Sciences)

SL-2 Small Molecule Replacement Therapies Cure Craniofacial Defects in Mice.

Dr. Rena D’Souza
(President of IADR, University of Utah, Salt Lake City, Utah, USA.)

12:30-13:30 Keynote Lecture

Main Hall, 2F

Moderator: Dr. Hidehiko Sano
(Graduate School of Dental Medicine, Division of Oral Health Science,
Department of Restorative Dentistry, Hokkaido University)

KL The roles of cellular senescence in aging and cancer

Dr. Akiko Takahashi
(Project for Cellular Senescence, Cancer Institute,
Japanese Foundation for Cancer Research / JST, PRESTO)

13:40-14:50 Symposium IV (cosponsored by JADR and Japanese Association for Dental Science) **Main Hall, 2F**

**“Advances in Clinical Dentistry Resulting from Basic Science Discoveries
-Lessons from Dental Materials Research “**

Moderator: Dr. Satoshi Imazato

(Department of Biomaterials Science, Osaka University Graduate School of Dentistry)

SIV-1 Dental Composites - A True Disruptive Change in Dentistry

Dr. Jack L. Ferracane

(Department of Restorative Dentistry Oregon Health & Science University,
Oregon Health and Science University)

SIV-2 Can we trust the success of adhesive restorations to the bonded interface?

Dr. Ricardo M. Carvalho

(Department of Oral Biological and Medical Sciences Faculty of Dentistry
University of British Columbia)

SIV-3 Durability of Adhesive Bond and Clinical Success of Composite Restorations

Dr. Masashi Miyazaki

(Department of Operative Dentistry, Nihon University School of Dentistry)

Poster Presentation

November 17 (Sat.) 3rd Lecture Room (5th floor)

November 17 (Sat.) 3rd Lecture Room (5th floor)

14:40-15:40 Adhesive Dentistry

001: Influence of Glass-Ceramic Coating on bonding between Zirconia and Composite Cement

P. THAMMAJARUK¹, S. BURANADHAM¹, O. THANATVARAKORN², M. GUAZZATO³

¹Department of Prosthetic Dentistry, Prince of Songkla University, Faculty of Dentistry, Hadyai, Songkhla, THAILAND, ²Bangkokthonburi University, Faculty of Dentistry, Thawi Watthana, Bangkok, THAILAND, ³Discipline of Prosthetics, The University of Sydney, Faculty of Dentistry, Westmead, New South Wales, AUSTRALIA

002: Effect of PVM/MA Copolymer on Dentinal Bond Strength of an Experimental Adhesive Resin

C. LAI, H. NA CHO, L. YE, F. OZER

University of Pennsylvania, Philadelphia, USA

November 17 (Sat.) 3rd Lecture Room (5th floor)

14:40-15:40 Bone and Mineralized Tissue / Dental Materials

003: Zoledronate promoted the expression of inflammatory cytokines in CD14⁺ cells in human peripheral blood mononuclear cells and inhibited their differentiation into osteoclasts

R. TAKIMOTO^{1,2}, Y. MIYAMOTO¹, A. YAMADA¹, T. SUZAWA¹, K. YOSHIMURA¹, K. SASA¹, T. SHIROTA², R. KAMIJO¹

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

004: Paradoxical mineralization in bone and aorta induced by defective FGF23/klotho signaling-Histological examination on *kl/kl* and *Aklotho*^{-/-} mice-

T. HASEGAWA¹, Y. MIYAMOTO², H. HONGO¹, T. YAMAMOTO³, N. AMIZUKA¹

¹Department of Developmental Biology of Hard Tissue, Graduate School of Dental Medicine, Hokkaido University, Sapporo, Japan, ²Atami Hospital, International University of Health and Welfare, Atami, Japan, ³Japan Self-Defense Forces Hanshin Hospital, Kawanishi, Japan

005: Bioinspired manipulation of environmental pH to induce rapid *in vitro* bone-like mineralization

E.S. HARA, N. AKTER, M. OKADA, T. MATSUMOTO

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

006: Assessment of reduced enamel discoloration from e-cigarette and tobacco heating product emissions compared to cigarettes *in vitro*

A. DALRYMPLE¹, A. TERRY¹, D. THORNE¹, M. GACA¹, S. COBURN¹, T. BADROCK², P. HALL², M. BARBER³

¹British American Tobacco, Southampton, UNITED KINGDOM, ²Intertek CRS, Hooton, UNITED KINGDOM, ³Borgwaldt KC GmbH, Hamburg, GERMANY

007: The fracture strength of PEEK (Poly Ether Ether Ketone) posts and composite resin cores in the case of flared root canals

K. SUGANO, W. KOMADA, D. OKADA, H. MIURA

Fixed Prosthodontics, Graduate School, Tokyo Medical and Dental University, Tokyo, Japan

008: Effect of beverages on surface microhardness of human dental enamel

O. ANGWARAVONG¹, K. TONGGERD², K. PIMPISON³, W. WERAARCHAKUL⁴,
T. ANGWARAWONG⁵

¹Department of Pediatric Dentistry, Faculty of Dentistry, Khon Kaen University, Khon Kaen, Thailand, Khon Kaen, THAILAND, ²Dental department, Ranod hospital, Songkhla, Thailand, Songkhla, THAILAND, ³Dental department, Kaedam hospital, Mahasarakham, Thailand, Mahasarakham, THAILAND, ⁴Department of Community Dentistry, Faculty of Dentistry, Khon Kaen university, Khon Kaen, Thailand, Khon Kaen, THAILAND, ⁵Department of Prosthodontics, Faculty of Dentistry, Khon Kaen university, Khon Kaen, Thailand, Amphur Muang Khon Kaen, Khon Kaen, THAILAND

November 17 (Sat.) 3rd Lecture Room (5th floor)

14:40-15:40 Cariology

009: Factors Associated with Caries Experience and Tooth-Surface Distribution in Preschoolers

C. Un LAM¹, F. HO¹, P. IP¹, H. LI², M. LAU², A. SHAM³

¹Department of Paediatrics and Adolescent Medicine, Li Ka Shing Faculty of Medicine, The University of Hong Kong, Hong Kong, HONG KONG, ²Division of Learning, Development and Diversity, Faculty of Education, The University of Hong Kong, Hong Kong, HONG KONG, ³Dental Command, Hong Kong St John Ambulance, Hong Kong, HONG KONG

November 17 (Sat.) 3rd Lecture Room (5th floor)

14:40-15:40 Craniomaxillofacial Biology / Neuroscience

010: Whole-exome sequencing in a Japanese pedigree ascertained as mandibular prognathism

T.S. KAJII¹, A. OKA², F. SAITO³, J. MITSUI⁴, J. IIDA³

¹Section of Orthodontics, Department of Oral Growth and Development, Fukuoka Dental College, Fukuoka, Japan, ²Institute of Medical Sciences, Tokai University, Isehara, Kanagawa, Japan, ³Department of Orthodontics, Division of Oral Functional Science, Graduate School of Dental Medicine, Hokkaido University, Sapporo, Japan, ⁴Department of Neurology, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan

011: The antinociceptive effects of standardized extract of Centella asiatica ECa233 on mice neuropathic pain induced by an infraorbital nerve injury.

A. WANASUNTRONWONG¹, N. LAKKHACHATPAN¹, M. TANTISIRA²

¹Mahidol University, Bangkok, THAILAND, ²Burapha University, Chonburi, THAILAND

012: Computer-assisted intraosseous injection versus conventional inferior alveolar nerve block in lower third molar surgery

S. SAM, S. KIATTAVORNCHAROEN, K. BOONSIRISETH, V. PAIRUCHVEJ,
N. WONGSIRICHAT

Oral and Maxillofacial Surgery, Mahidol University, Bangkok, THAILAND

013: Histomorphometric Study on the Mandibular Condyle in Rats after the Fixed Functional Appliance Application

S. JUE¹, J. CHO¹, J. KIM²

¹Oral Anatomy and Developmental Biology, Kyung Hee University, School of Dentistry, Seoul, KOREA (THE REPUBLIC OF), ²Department of Dental Hygiene, Gachon University, College of Health and Science, Incheon, KOREA (THE REPUBLIC OF)

014: Cutting off' Dens invagination as a treatment of dens invaginatus: Case report
Y. SONG

Seoul National University Gwanak Dental Hospital, Seoul 08826, South Korea

November 17 (Sat.) 3rd Lecture Room (5th floor)

14:40-15:40 Dental Materials

015: The *in vitro* cellular biological behavior of pH-sensitive novel double-layered nanoparticles

L. SHEN, J. WU

The Third Affiliated Hospital, Air Force Medical University, Xi'an, CHINA

016: Surface roughness evaluation of glass carbomer and resin based fissure sealants

T. KOLUS¹, H. ULKER¹, N. GUNAYDIN¹

¹Department of Restorative Dentistry, Selcuk University, Konya, TURKEY

November 17 (Sat.) 3rd Lecture Room (5th floor)

14:40-15:40 Endodontics and Pulp Biology

017: The Effect Of Dentin Remineralization By Pulp-capping Materials.

A. KATSUMATA, T. HOSHIKA, Y. NISHITANI

Department of Restorative Dentistry and Endodontology, Research Field in Dentistry, Medical and Dental Science Area, Research and Education Assembly, Kagoshima University, Kagoshima, Japan

018: Inhibition of lysophosphatidic acid receptor 2 expedites odontoblastic differentiation of dental pulp stem cells

I. JANG¹, E. SEO¹, D. KIM¹, Y. HUH², J. HAN³, H. KANG³, Y. KIM⁴, H. KIM⁴, G. TIGYI⁵, J. KIM⁶, H. KIM⁷

¹Oral Biochemistry and Molecular Biology, Pusan National University School of Dentistry, Yangsan, Gyeongsangnam-do, KOREA (THE REPUBLIC OF), ²Korea Basic Science Institute, Cheongju, Chungcheongbuk-do, KOREA (THE REPUBLIC OF), ³Bio Engineering, UNIST, Ulsan, Chungcheongbuk-do, KOREA (THE REPUBLIC OF), ⁴Pusan National University School of Dentistry, Yangsan, Chungcheongbuk-do, KOREA (THE REPUBLIC OF), ⁵Department of Physiology, University of Tennessee Health Science Center, Memphis, Tennessee, UNITED STATES, ⁶Kyungpook National University School of Dentistry, Daegu, Tennessee, KOREA (THE REPUBLIC OF), ⁷DGIST, Daegu, Tennessee, KOREA (THE REPUBLIC OF)

019: Promotion of Dental Pulp Wound Healing in New Zealand White Rabbits' Teeth by Thai Propolis Product

P. CHAILERTVANITKUL¹, N. LIKITPONGPIPAT¹, S. SANGMANEEDET², P. KLANRIT³, R. NOISOMBUT⁴, S. KRISANAPRAKORNKIT⁵

¹Restorative Dentistry, Faculty of Dentistry, KhonKaen University, Muang, KhonKaen, THAILAND, ²Pathobiology, Faculty of Veterinary Medicine, Muang, KhonKaen, THAILAND, ³Oral Diagnosis, Faculty of Dentistry, KhonKaen University, Muang, KhonKaen, THAILAND, ⁴Community Dentistry, Faculty of Dentistry, KhonKaen University, Muang, KhonKaen, THAILAND, ⁵Oral Biology and Diagnostic Sciences, Faculty of Dentistry, ChiangMai University, Muang, Chiangmai, THAILAND

- 020: The effect of date fruit (*Phoenix dactylifera*) extract on dental pulp cell**
A. RATTANATHONGKOM¹, P. WEERAYUTSIL², C. PONLATHAM³, A. KOTCHOOM⁴, S. RATTANATHONGKOM⁴, R. WONGRAWEEWIWAT⁵
¹Oral biology, Khon Kaen University, Khon Kaen, Khon Kaen, THAILAND, ²Dental Hospital, Khon Kaen University, Khon Kaen, Khon Kaen, THAILAND, ³Oral Diagnosis, Khon Kaen University, Khon Kaen, Khon Kaen, THAILAND, ⁴Khon Kaen University, Khon Kaen, Khon Kaen, THAILAND, ⁵Khon Kaen University, Khon Kaen, Khon Kaen, THAILAND
- 021: Mesio Buccal root canal morphology of permanent maxillary first molars in Northeast Thailand using Cone Beam Computed Tomography and root canal staining technique**
T. SAMAKSAMARN
 KHON KAEN UNIVERSITY, Khon Kaen, THAILAND
- November 17 (Sat.) 3rd Lecture Room (5th floor)**
14:40-15:40 Immunology / Microbiology / Salivary Gland Biology
- 022: High-dose intravenous immunoglobulin prevents the depletion of type XVII collagen through anti-idiotypic antibodies**
M. KAMAGUCHI¹, H. IWATA², H. UJIE², H. SHIMIZU², Y. KITAGAWA¹
¹Department of Oral diagnosis and Medicine, Hokkaido University Graduate School of Dental Medicine, Sapporo, Japan, ²Department of Dermatology, Hokkaido University Graduate School of Medicine, Sapporo, Japan
- 023: Title Influence of macrophages and osteoclasts on healing of osseous wounds**
M. HIRANO¹, H. FUJIMOTO¹, S. MIYAZONO¹, A. SUGIHARA¹, N. SAWA², J. YAMASHITA²
¹Fukuoka Dental College Graduate School, Fukuoka, Japan, ²Prosthodontics, Fukuoka Dental College, Fukuoka, Japan
- 024: Pulmonary edema induced by cognate anti-MHC antibody accompanies glycocalyx degradation**
R. FUKUI^{1,2}, D. SUZUKI¹, R. KAMIJO¹, T. IJIMA²
¹Department of Biochemistry, Showa University School of Dentistry, Tokyo, Japan, ²Department of Perioperative Medicine, Division of Anesthesiology, Showa University School of Dentistry, Tokyo, Japan
- 025: Vizantin inhibits bacterial adhesion and causes streptococcal biofilm to detach without affecting bacterial growth.**
T. HASEGAWA¹, S. TAKENAKA¹, M. ODA², R. NAGATA¹, Y. SUZUKI¹, Y. SAKAUE¹, T. OHSUMI¹, Y. NOIRI¹
¹Division of Cariology, Operative Dentistry and Endodontics, Niigata University Graduate School of Medical and Dental Sciences, Niigata, Japan, ²Department of Microbiology and Infection Control Science, Kyoto Pharmaceutical University, Tokyo, Japan
- 026: Histochemical assessment of mandibular alveolar bones and tibiae in obese type II diabetic SDT Cg-Leprfa fatty rats**
T. YOSHIDA¹, H. HONGO², Y. MIYAMOTO³, T. YAMAMOTO⁴, N. AMIZUKA², T. HASEGAWA²
¹School of Dental Medicine, Fifth-Grade, Hokkaido University, Sapporo, Japan, ²Department of Developmental Biology of Hard Tissue, Division of Oral Health Science, Graduate School of Dental Medicine, Hokkaido University, Sapporo, Japan, ³International University of Health and Welfare Atami Hospital, Atami, Japan, ⁴JSDF Hanshin Hospital, Kawanishi, Japan

- 027: MyD88 signaling causes formation of high endothelial venules to develop autoimmune sialadenitis**
T. INTO, M. INOMATA, M. ABE
 Department of Oral Microbiology, Asahi University School of Dentistry, Gifu, Japan
- 028: Porphyromonas gulae LPS activates inflammatory responses in gingival epithelial cells**
S. YOSHIDA¹, H. INABA¹, R. NOMURA², K. NAKANO², M. NAKANO¹
¹Department of Pediatric Dentistry, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan, ²Department of Pediatric Dentistry, Osaka University Graduate School of Dentistry, Osaka, Japan
- 029: Studies on suppression of opportunistic infectious bacteria by lactic acid bacteria and antibacterial drugs**
T. NAKANO¹, S. IMAI², T. ISHIKAWA³, T. TERAJ⁴, T. OKUMURA⁵, N. HANADA⁶, H. KAWAHARA⁷
¹Department of Dental Anesthesiology, School of Dental Medicine, Tsurumi University, Yokohama, Japan, ²Department of Translational Research, School of Dental Medicine, Tsurumi University, Yokohama, Japan, ³Department of Dental Anesthesiology, School of Dental Medicine, Tsurumi University, Yokohama, Japan, ⁴Microbiological Research Department, Yakult Central Institute, Yakult Honsha Co., Ltd., Tokyo, Japan, ⁵Microbiological Research Department, Yakult Central Institute, Yakult Honsha Co., Ltd., Tokyo, Japan, ⁶Department of Translational Research, School of Dental Medicine, Tsurumi University, Yokohama, Japan, ⁷Department of Dental Anesthesiology, School of Dental Medicine, Tsurumi University, Yokohama, Japan
- 030: Outer membrane proteins of Porphyromonas gingivalis are involved in the resistance to antimicrobial peptides**
M. INOMATA, M. ABE, T. INTO
 Asahi University School of Dentistry, Department of Oral Microbiology, Mizuho, Japan
- 031: HIF1 α modulates the palatal wound healing via M1/M2 macrophage reprogramming**
I.R. HUTAMI, H. MORI, T. KHUREL-OCHIR, A. MINO-OKA, A. IWASA, E. TANAKA, T. IZAWA
 Department of Orthodontics and Dentofacial Orthopedics, Institute of Biomedical Sciences, Tokushima University Graduate School, Tokushima, Japan
- 032: Molecular Expression of Mg²⁺ regulator TRPM7 and CNNM4 in rat odontoblasts**
S. OH¹, J. WON¹, J. KIM¹, S. OH²
¹Department of Brain and Cognitive Sciences, College of Natural Sciences, Seoul National University, Seoul, KOREA (THE REPUBLIC OF), ²Dental Research Institute and Department of Neurobiology & Physiology, Seoul National University, Seoul, KOREA (THE REPUBLIC OF)
- 033: Effects of oil pulling on reducing oral malodor and hydrogen sulfide producing bacteria in oral cavity**
R.L. SRISATJALUK¹, W. CHIDCHUANGCHAI², Y. KUPHASUK³, S. SA-NGUANSIN⁴
¹Department of Oral Microbiology, Faculty of Dentistry, Mahidol University, Bangkok, THAILAND, ²Department of Oral Medicine and Periodontology, Faculty of Dentistry, Mahidol University, Bangkok, THAILAND, ³Department of Oral Medicine and Periodontology, Faculty of Dentistry, Mahidol University, Bangkok, THAILAND, ⁴Department of Oral Biology, Faculty of Dentistry, Mahidol University, Bangkok, THAILAND
- 034: Unstimulated Salivary Flow Rate and pH in Type 2 Diabetes**
P. PHOTHIPAKDEE¹, P. KLANRIT¹, N. JANTABAN¹, N. SAMPHANSANTIKOOL¹,

S. CHAROENSRI², S. PUASIRI³

¹Oral Diagnosis, Faculty of Dentistry, Khon Kaen University, Khon Kaen, THAILAND, ²Internal Medicine, Faculty of Medicine, Khon Kaen University, Khon Kaen, THAILAND, ³Community Dentistry, Faculty of Dentistry, Khon Kaen University, Khon Kaen, THAILAND

035: Anti-adhesion efficiency of Staphylococcus aureus on curcumin polyelectrolyte multilayer films coated acrylic resin discs

T. ANGWARAWONG¹, O. ANGWARAVONG², P. SEEDAPOL³, P. THANAPHUTTIWIROT³

¹Department of Prosthodontics, Faculty of Dentistry, Khon Kaen University, Amphur Muang Khon Kaen, Khon Kaen, THAILAND, ²Department of Pediatric Dentistry, Faculty of Dentistry, Khon Kaen University, Khon Kaen, Khon Kaen, THAILAND, ³Faculty of Dentistry, Khon Kaen University, Khon Kaen, Khon Kaen, THAILAND

November 17 (Sat.) 3rd Lecture Room (5th floor)

14:40-15:40 JADR Travel Award

036: Invasive properties of OSCC and its interactions with bone cells.

O. BANEEN Q EBRAHIMI, F. EBRAHIMI, F. ISLAM, P. QIAO, P. REHER, V. GOPALAN, A.K. LAM

Griffith University, Gold Coast, Australia

037: Nano-bio-mimetic scaffold for improved dental implant soft tissue integration.

A. MATHUR¹, M.F. ANWAR², A.K. DINDA², V. KOUL³, O.P. KHARBANDA¹

¹Department of Orthodontics, Centre for Dental Education and Research (CDER), AIIMS, New Delhi, India, ²AIIMS, New Delhi, India, ³IIT Delhi, India

038: The Effects of Temporomandibular Disorder Treatment on Management of Migraine and Cervical Myofascial Pain

J. KANG

Oral Medicine, Ajou University School of Medicine, Suwon, Gyeonggi-do, KOREA (THE REPUBLIC OF)

039: Synergism of Streptococcus mutans and Candida albicans in mixed-species biofilms

K. ELLEPOLA¹, C.J. SENEVIRATNE¹, Y. LIU², H. KOO², T.K. LIM³, Q. LIN³

¹Faculty of Dentistry, National University of Singapore, Singapore, SINGAPORE, ²School of Dental Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, UNITED STATES, ³Protein and Proteomics Centre, Department of Biological Science, National University of Singapore, Singapore, Pennsylvania, SINGAPORE

November 17 (Sat.) 3rd Lecture Room (5th floor)

14:40-15:40 Microbiology

040: Analysis of the bacterial flora of infected shunts in dialysis patients and its relation to their oral flora

T.T.H NGUYEN¹, M. ONO², A. KIMURA-ONO^{1,3}, T. KOMORI¹, E. KOYAMA¹, T. OOHASHI², T. KUBOKI¹

¹Department of Oral Rehabilitation and Regenerative Medicines, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan, ²Department of Molecular Biology and Biochemistry, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan, ³Centre for Innovative Clinical Medicine, Okayama University Hospital, Okayama, Japan

November 17 (Sat.) 3rd Lecture Room (5th floor)

14:40-15:40 Oral Health Research / Behavioral Science / Dental Education

041: Significant and Learning Effects of Supplementary Lectures named "Seminar of Dental Biomaterials" to Support 6th-Year Students for Success in the 111th National Board Dental Examination

Y. NAGAMATSU, H. IKEDA, H. SHIMIZU

Division of Biomaterials, Department of Oral Functions, Kyushu Dental University, Kitakyushu, Japan

042: Is the position of dorsum of tongue related to oral frailty?

Y. MATSUDA, M. KURODA, E. ITO, K. ARAKI

Division of Radiology, Department of Oral Diagnostic Sciences, Showa University School of Dentistry, Tokyo, Japan

043: Oral health promotion for school-aged children via peers: A pilot study

T BO¹, M. DU²

¹Central laboratory, Shandong Provincial hospital affiliated to Shandong University, Jinan, Shandong, CHINA, ²Australian research center for population oral health, University of Adelaide, Adelaide, South Australia, AUSTRALIA

044: Only Buccal Infiltration of 4% Articaine on Maxillary Third Molar Surgery

S. SOM¹, N. WONGSIRICHAT¹, C. SAENGSRINAVIN²

¹Department of Oral Maxillofacial Surgery, Faculty of Dentistry, Mahidol University, Bangkok, THAILAND, ²Private practice, Faculty of Dentistry, Mahidol University, Bangkok, THAILAND

045: Significance of research subjects in Mahidol undergraduate dental curriculum

S. KOOHAWAYROJANAPAKORN¹, R.L. SRISATJALUK², S. MITRIRATTANAKUL³, K. SIPIYARUK⁴

¹Education and Academic Office, Faculty of Dentistry, Mahidol University, Bangkok, THAILAND, ²Department of Oral Microbiology, Faculty of Dentistry, Mahidol University, Bangkok, THAILAND, ³Department of Masticatory Sciences, Faculty of Dentistry, Mahidol University, Bangkok, THAILAND, ⁴Dental Hospital, Faculty of Dentistry, Mahidol University, Bangkok, THAILAND

046: Prediction of Academic Achievement of First Year Mahidol Dental Students

N. KOONTHAUGTHAO¹, S. KOOHAWAYROJANAPAKORN¹, R.L. SRISATJALUK², S. MITRIRATTANAKUL³, K. SIPIYARUK⁴

¹Education and Academic Office, Faculty of Dentistry, Mahidol University, Bangkok, THAILAND, ²Department of Oral Microbiology, Faculty of Dentistry, Mahidol University, Bangkok, THAILAND, ³Department of Masticatory Sciences, Faculty of Dentistry, Mahidol University, Bangkok, THAILAND, ⁴Dental Hospital, Faculty of Dentistry, Mahidol University, Bangkok, THAILAND

November 17 (Sat.) 3rd Lecture Room (5th floor)

14:40-15:40 Oral Medicine, Pathology, and Oncology

Oral Health Research / Behavioral Science / Dental Education

047: Antiangiogenesis and osseous wound healing

H. FUJIMOTO¹, M. HIRANO¹, A. SUGIHARA¹, S. MIYAZONO¹, N. SAWA², J. YAMASHITA²

¹Fukuoka Dental College graduate school, Fukuoka, Japan, ²Prosthodontics Fukuoka Dental College, Fukuoka, Japan

048: Promotion of metastasis via alteration of vascular endothelium by tumor exosome miRNA

M. MORIMOTO^{1,2}, N. MAISHI¹, A. MATSUDA¹, T. KITAMURA¹, F. HIGASHINO¹,
A. YOKOYAMA³, Y. KITAGAWA², K. HIDA¹

¹Dept. of Vascular Biology and Molecular Pathology, Hokkaido Univ. Grad. Sch. Dent. Med., Sapporo, Japan, ²Dept. of Oral Diagnosis and Medicine, Hokkaido Univ. Grad. Sch. Dent. Med., Sapporo, Japan, ³Dept. of Oral Functional Prosthodontics, Hokkaido Univ. Grad. Sch. Dent. Med., Sapporo, Japan

049: Cytidine deaminase enables TLR8 activation by cytidine.

K. FURUSHO¹, T. SHIBATA², S. NAKAMURA¹, K. MIYAKE²

¹oral maxillofacial surgery, Kyushu University, Fukuoka, Japan, ²Division of Innate Immunity, The University of Tokyo, Tokyo, Japan

050: The association between serum Vitamin B12 and Vitamin D/25(OH)D in women with Recurrent Aphthous Stomatitis

H. SUSANTO¹, S. BUDIARTI¹, S. SUPRIATNO¹, P. KENDARWATI², H. SUSANTO³,
B. SOEBADI⁴, D. ERNAWATI⁴

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051: Febrile Days and Cervical Auscultation in Japanese Nursing Home Residents.

N. DEWAKE¹, H. HASHIMOTO¹, K. NONOYAMA^{1,2}, T. NONOYAMA¹, Y. SHIMAZAKI¹

¹Department of preventive Dentistry and Dental Public Health, Aichi Gakuin University, Nagoya, Japan, ²Nonoyama Dental Clinic, Aichi, Japan

052: Overexpression of Ild6p, An Aryl Alcohol Dehydrogenase, Reduced Biofilm Matrix Biomass and Increased Susceptibility to Stressors in Candida dubliniensis Biofilms

P. TSANG¹, O. LAM², L.P. SAMARANAYAKE³

¹Technological and Higher Education Institute of Hong Kong, Hong Kong, HONG KONG, ²The University of Hong Kong, Hong Kong, HONG KONG, ³University of Sharjah, Sharjah, UNITED ARAB EMIRATES

111: Profiling of Microbiota of Baby-Drinks after Drinking with Artificial Nipples

A. WAKUI¹, H. SANO¹, H. AIHARA¹, M. KAWACHI¹, J. WASHIO², Y. ABIKO², G. MAYANAGI²,
K. ISHIGURO², K. YAMAKI², T. SATO¹

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November 17 (Sat.) 3rd Lecture Room (5th floor)

14:40-15:40 Periodontal Research/

053: Study for the diabetic nephropathy promoted by Porphyromonas gingivalis lipopolysaccharide and the prevention effect by TLR blocker

K. KAJIWARA¹, K. TAKARA¹, S. TAKATA¹, S. TAMAOKI¹, Y. YOSHINAGA³, Y. SAWA²,
R. SAKAGAMI³

¹Section of Orthodontics, Department of Oral Growth and Development, Fukuoka Dental College, Fukuoka, Japan, ²Department of Oral Function & Anatomy Okayama University Graduate School of

Medicine, Dentistry and Pharmaceutical Science, Okayama, Japan, ³Department of Periodontology, Fukuoka Dental College, Fukuoka, Japan

054: The effect of *Porphyromonas gingivalis* oral administration in germ-free mice

K. SATO^{1,2}, M. YOKOJI^{1,2}, M. YAMADA^{1,2}, T. NAKAJIMA^{2,3}, K. YAMAZAKI²

¹Division of Periodontology, Department of Oral Biological Sciences, Niigata University Graduate school of Medical and Dental Sciences, Niigata, Japan, ²Research Unit for Oral-Systemic Connection, Division of Oral Science for Health Promotion, Niigata University Graduate school of Medical and Dental Sciences, Niigata, Japan, ³Department of Periodontology, Tokyo Dental Collage, Tokyo, Japan

055: Analysis of PLAP-1 in a mouse periodontitis model

M. KINOSHITA¹, S. YAMADA², C. FUJIHARA¹, S. KAWAMURA¹, T. AWATA¹, K. TSUSHIMA¹, M. TAKEDACHI¹, S. MURAKAMI¹

¹Department of Periodontology, Osaka University Graduate School of Dentistry, Osaka, Japan, ²Division of Periodontology and Endodontology, Department of Oral Biology, Tohoku University Graduate School of Dentistry, Sendai, Japan

056: Serum antibody titer against FimA Type IV of *Porphyromonas gingivalis* is a possible marker for preterm birth cause by periodontitis.

H. TAKAGI¹, H. FURUSHO², M. MIYAUCHI², K. OUHARA³, T. FUJITA³, S. URABE⁴, T. SHINTANI⁵, H. KURIHARA^{3,5}, Y. KUDOU⁴, T. TAKATA²

¹School of Dentistry, Hiroshima University, Hiroshima, Japan, ²Department of Oral Maxillofacial Pathobiology, Hiroshima University, Hiroshima, Japan, ³Department of Periodontal Medicine, Hiroshima University, Hiroshima, Japan, ⁴Department of Obstetrics and Gynecology, Hiroshima University, Hiroshima, Japan, ⁵Center for oral clinical examination, Hiroshima University, Hiroshima, Japan

057: Sucrose suppressed osteoclast differentiation

S. UEDA, K. YOSHIMURA, R. KAMIJO

Department of Biochemistry, Showa University School of Dentistry, Tokyo, Japan

058: Transparency in Random Allocation in a Randomized Clinical Trial; Effectiveness of Periodontal Health Improvement on Vascular Endothelial Function

A. OKADA^{1,2}, T. MURATA¹, M. ARIYOSHI^{1,3}, R. OTSUKA¹, M. YAMASHITA¹, M. KOSAKA^{1,4}, M. SUZUKI⁵, K. TATENO⁵, R. WAKIYAMA⁵, T. MIZUKAKI⁶, A. IMAMURA⁷, H. UEMATSU⁷, H. AOYAGI⁷, M. SUZUKI⁸, T. SATO⁸, H. KAWAHARA⁵, K. MATIN^{3,9,10}, N. HANADA¹

¹Department of Translational Research, Tsurumi University School of Dental Medicine, Yokohama, Japan, ²Department of Operative Dentistry, Tsurumi University School of Dental Medicine, Yokohama, Japan, ³Cariology and Operative Dentistry, Tokyo Medical and Dental University, Tokyo, Japan, ⁴Department of Dentistry, Tokyo Children's Rehabilitation Hospital, Tokyo, Japan, ⁵Department of Dental Anesthesiology, Tsurumi University School of Dental Medicine, Yokohama, Japan, ⁶Oral and Maxillofacial Surgery, St. Marianna University School of Medicine, Kawasaki Municipal Tama Hospital, Kawasaki, Japan, ⁷Nippon Dental University Hospital, Tokyo, Japan, ⁸The Nippon Dental University College at Tokyo Department of Dental Hygiene, Tokyo, Japan, ⁹Endowed Department of International Oral Health Science, Tsurumi University School of Dental Medicine, Yokohama, Japan, ¹⁰Medoc International Co. Ltd, Tokyo, Japan

059: Comparison of bone defects and mesenchymal stem cells population in ligature-induced young and old aged periodontitis mice models

K. T. AUNG, K. AKIYAMA, K. MAEKAWA, T. KUBOKI

Department of Oral Rehabilitation and Regenerative Medicine, Okayama University Graduate School

of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan

060: Prediction models for the incidence and progression of periodontitis: a systematic review

M. DU¹, K. KAPELLAS¹, M.A. PERES¹, T. BO²

¹Australian Research Centre for Population Oral Health, University of Adelaide, Adelaide, South Australia, AUSTRALIA, ²Key laboratory, Shandong Provincial hospital affiliated to Shandong University, Jinan, CHINA

061: Effect between acrylic and silicone gingival mask to oral hygiene and satisfaction in maintenance periodontitis patients: a pilot study

S. PRAJANEH¹, J. TRAKARNBOONKIJ², R. KRONGVANITCHAYAKUL³, A. CHATANAN⁴, W. SUWANNARONG⁵, D. SAE-LEE⁶, C. PRUNKNGARMPUN⁶, S. PUASIRI,⁷

¹Periodontology, Faculty of Dentistry, Khon Kaen University, Khon Kaen, THAILAND, ²Dental, Chonburi provincial health office, Chonburi, THAILAND, ³Dental, Queen Savangvadhana memorial hospital (Red Cross Hospital), Chonburi, THAILAND, ⁴Dental, Phonsawan Hospital, Nakhon Phanom, THAILAND, ⁵Periodontology, Faculty of Dentistry, Khon Kaen University, Khon Kaen, THAILAND, ⁶Prosthodontics, Faculty of Dentistry, Khon Kaen University, Khon Kaen, THAILAND, ⁷Community Dentistry, Faculty of Dentistry, Khon Kaen University, Khon Kaen, THAILAND

November 17 (Sat.) 3rd Lecture Room (5th floor)

14:40-15:40 Prosthodontics and Implantology

062: Effect of dental titanium implants on gray value measurement of alveolar bone CBCT image.

S. KOSITBOWORNCHAI, A. SRICHAISANG, T. PONSALA

Department of Oral Diagnosis, Faculty of Dentistry, Khon Kaen University, Khon Kaen, THAILAND

063: Stress analysis of crown-fractured teeth after restoration with different techniques: A FEA Study

A. A. UCAR¹, S. BELLI¹, O. ERASLAN², G. ESKITASCIOGLU³

¹Department of Endodontics, Faculty of Dentistry, Selcuk University, Konya, TURKEY, ²Department of Prosthodontics, Selcuk University Faculty of Dentistry, Konya, TURKEY, ³Department of Prosthodontics, piAcademy, Ankara, TURKEY

064: Silicon nitride particulate dispersion enhances antibacterial and osteoconductive activities of PEEK implants

T. ADACHI¹, S. Horiguchi¹, T. Yamamoto¹, A. Rondinella², F. Boschetto², E. Marin², B. McEntire³, R. Bock³, O. Matsuda¹, G. Pezzotti², N. Kanamura¹

¹Dental Medicine, Kyoto Prefectural University of Medicine, Kyoto-shi, Kyoto-fu, Japan, ²Kyoto Institute of Technology, Kyoto, Japan, ³Amedica Corporation, Salt Lake City, U.S.A.

065: A preventive dentistry method for temporomandibular joint disorder (Type 1 and 2)

S. NAGAME

Oral Health Sciences, Baika Women's University, Osaka, Japan

November 17 (Sat.) 3rd Lecture Room (5th floor)

14:40-15:40 Stem Cell and Regeneration

066: HLA allele selective genome editing in human iPS cells using ZFN

S. OTARI¹, H. Aoki², T. Kawaguchi³, Y. Shimizu¹, T. Shibata³, T. Kunisada², K. Tezuka², T. Shibutani¹

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067: Dedifferentiation and Direct Reprogramming of epithelial cell rests of Malassez into osteoblast like cells by epigenetic agents

K. YOSHIDA¹, A. ONISHI¹, D. HIRAKI¹, T. MORIKAWA¹, F. HARADA², R. TAKAI³, O. UEHARA⁴, J. SATO¹, M. NISHIMURA¹, Y. ABIKO¹

¹Division of Oral Medicine and Pathology, Department of Human Biology and Pathophysiology, School of Dentistry, Health Sciences University of Hokkaido, Japan, ²Division of Oral Maxillofacial Surgery, Department of Human Biology and Pathophysiology, Health Sciences University of Hokkaido, Japan, ³The Institute of Health Sciences, Health Sciences University of Hokkaido, Japan, ⁴Division of Disease Control and Molecular Epidemiology, Department of Oral Growth and Development, School of Dentistry, Health Sciences University of Hokkaido, Japan

068: Potential for Drug Repositioning of Midazolam for Dentin Regeneration

C. KUDO¹, M. SAITO², Y. YAMAKOSHI²

¹A Second-year Student, School of Dental Medicine, Tsurumi University, Yokohama, Japan, ²Dept. of Biochemistry and Molecular Biology, School of Dental Medicine, Tsurumi University, Yokohama, Japan

Poster Presentation

November 18 (Sun.) 3rd Lecture Room (5th floor)

November 18 (Sun.) 3rd Lecture Room (5th floor)

15:00-16:00 Adhesive Dentistry

069: Dentin bond fatigue durability and surface free energy characteristics with universal adhesives

K. NOJIRI, A. TSUJIMOTO, Y. SHIMATANI., Y. NAGURA, R. ISHII, T. TAKAMIZAWA, M. MIYAZAKI

The Department of Operative Dentistry, Nihon University, Tokyo, Japan

070: Influence of application method on enamel bond of universal adhesives

M. IINO, A. IMAI, K. SAI, A. TSUJIMOTO, T. TAKAMIZAWA, M. MIYAZAKI

Nihon University School of Dentistry, Tokyo, Japan

071: Microtensile bond strength and mechanical properties of commercial CAD/CAM blocks bonded to each other

K. YAMASHITA¹, S. KAWANO¹, Y. TOIDA¹, H. SANO¹, K. NISHIKAWA²

¹Restorative Dentistry, Hokkaido University, Sapporo, Hokkaido, Japan, ²Dept of Dental Medical Laboratory Hokkaido University Hospital, Sapporo, Japan

072: Effects of Waiting Time on Universal Adhesives for Bonding with Hybrid Resin Blocks

K. OKUYAMA, Y. TAMAKI

Department of Dental Material Science, Asahi University School of Dentistry, Mizuho, Japan

November 18 (Sun.) 3rd Lecture Room (5th floor)

15:00-16:00 Bone and Mineralized Tissue

073: Activation of the macrophage on the carbon nanohorn functionalized anodized titanium.

S. KIMURA¹, E. HIRATA¹, S. TAKADA^{1,2}, M. SAKAIRI², M. YUDASAKA³, A. YOKOYAMA¹
¹Graduate School of Dental Medicine, Hokkaido University, Sapporo, Japan, ²Division of Materials Science and Engineering, Faculty of Engineering, Hokkaido University, Sapporo, Japan, ³Nanomaterials Research Institute (NMRI), National Institute of Advanced Industrial Science and Technology (AIST), Japan

074: Histological alteration of blood vessel in bone by intermittent PTH administration

S. ZHAO^{1,2}, Y. MIYAMOTO³, M. ABE⁴, T. YAMAMOTO⁵, T. MAE^{1,6}, K. TEI², N. AMIZUKA¹, T. HASEGAWA¹

¹Department of Developmental Biology of Hard Tissue, Division of Oral Health Science, Graduate School of Dental Medicine, Hokkaido University, Sapporo, Japan, ²Department of Oral and Maxillofacial Surgery, Graduate School of Dental Medicine, Hokkaido University, Sapporo, Hokkaido, Japan., ³Atami Hospital, International University of Health and Welfare, Shizuoka, Japan, ⁴School of Dental Medicine, Hokkaido University, Sapporo, Japan, ⁵Japan Self-Defense Forces Hanshin Hospital, Kawanishi, Japan, ⁶Department of Gerodontology, Graduate School of Dental Medicine, Hokkaido University, Sapporo, Japan

075: Histological Assessment Of Osteoblasts, Osteocytes And Blood Vessel In Bone By Alendronate Administration

H. YOSHINO, T. HASEGAWA, N. AMIZUKA

Department of Developmental Biology of Hard Tissue, School of Dental Medicine, Hokkaido University, Hokkaido, Japan

076: Immunolocalization and expression of membrane transporters and enzymes involved in calcification of bone by intermittent PTH administration.

T. MAE^{1,4}, Y. MIYAMOTO², H. HONGO¹, T. YAMAMOTO³, Z. QIU¹, Y. YAMAZAKI⁴, N. AMIZUKA¹, T. HASEGAWA¹

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077: Histological examination on new bone formation by combinations of tricalcium phosphates and phosphorylated-pullulan (PPL) composite

H. HONGO¹, T. MAE¹, Y. MORITANI¹, S. KIRIKOSHI¹, Y. MORIMOTO¹, K. HASHIMOTO¹, T. HASEGAWA¹, Y. YOSHIDA², N. AMIZUKA¹

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078: Evaluation of the effects of γ -radiation on the mechanical properties of dentin.

A.A. CHOWDHURY¹, A. ALAM¹, P. EAMSA-ARD¹, R. ISLAM¹, Y. TOIDA¹, F. CHEN¹, S. KAWANO¹, M. MATSUMOTO¹, S. HOSHIKA¹, M. YAMAUTI¹, H. SANO¹, P. SAIKAEW²

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November 18 (Sun.) 3rd Lecture Room (5th floor)

15:00-16:00 Craniomaxillofacial Biology / Neuroscience

079: Withdrawn

080: Histone methylation involved in temporomandibular joint osteoarthritis in aged mice

M. UKITA¹, K. MATSUSHITA², M. TAMURA¹, T. YAMAGUCHI¹

¹Department of Crown and Bridge Prosthodontics, Graduate School of Dental Medicine, Hokkaido University, Sapporo, Japan, ²Department of Oral Disease Research, National Center for Geriatrics and Gerontology, Obu, Japan

081: P2X7 receptor activation induced high levels of ATP release via pannexin channel in rat trigeminal ganglion neurons.

H. INOUE¹, H. KURODAS², S. OHYAMA³, W. OHUSA³, A. HIGASHIKAWA³, M. KIMURA³, Y. SHIBUKAWA³, T. ICHINOHE¹

¹Dental Anesthesiology, Tokyo Dental College, Tokyo, Japan, ²Crit Care Medical Dental, Kanagawa Dental University, Kanagawa, Japan, ³Physiology, Tokyo Dental College, Tokyo, Japan

082: Using Pain scale to analyze treatment outcome in patients with Primary Burning Mouth syndrome

D. PAUDEL¹, M. UTSUNOMIYA¹, K. YOSHIDA¹, D. HIRAKI¹, P. NEOPANE¹, B. ADHIKARI¹, A. ONISHI¹, T. MORIKAWA¹, J. SATO¹, M. NISHIMURA¹, H. MATSUOKA², I. CHIBA², Y. ABIKO¹

¹Division of Oral Medicine and Pathology, Health Sciences University of Hokkaido, Hokkaido, Japan, ²Division of Disease Control and Molecular Epidemiology, Department of Oral Growth and Development, School of Dentistry, Health Sciences University of Hokkaido, Japan

083: Dental Cone Beam CT Identifies Causative Tooth

N. AIDA, K. TAKADA, S. TANZAWA, M. SUEHARA, M. FURUSAWA
Tokyo Dental College, Tokyo, JAPAN

November 18 (Sun.) 3rd Lecture Room (5th floor)

15:00-16:00 Dental Materials

084: Depth of cure of resin composites using varying light irradiance exposures with LED curing unit

A. TSUJIMOTO^{1,2}, Y. SHIMATANI¹, Y. NAGURA¹, K. NOJIRI¹, Y. HOSOYA¹, T. TAKAMIZAWA^{1,2}, M. MIYAZAKI^{1,2}

¹Department of Operative Dentistry, School of Dentistry, Nihon University, Japan, ²Division of Biomaterials Science, School of Dentistry, Nihon University, Japan

085: Withdrawn

086: The development of new cement with apatite-forming ability

C. INAMI¹, Y. NISHITANI², S. ITSUNO¹

¹Department of Environment and Life Sciences, Toyohashi University of Technology, Aichi, Japan, ²Department of Restorative Dentistry and Endodontology, Research Field in Dentistry, Medical and Dental Sciences Area, Research and Education Assembly, Kagoshima University, Kagoshima, Japan

087: Optical properties of nano fillers producing structural color for composite resins

S. YAMAGUCHI, C. LEE, S. IMAZATO

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

- 088: *In silico* prediction of mechanical properties of CAD/CAM resin composites with perfect silane coupling using cryo-electron microscopic images**
 C. LEE, S. YAMAGUCHI, S. IMAZATO
 Department of Biomaterials Science, Osaka University Graduate School of Dentistry, Suita, Japan
- 089: Simulated localized wear of resin cements for universal adhesives with different curing mode**
 K. SHIRATSUCHI¹, A. TSUJIMOTO^{1,2}, Y. SHIMATANI¹, Y. NAGURA¹, K. NOJIRI¹,
 T. TAKAMIZAWA^{1,2}, M. MIYAZAKI^{1,2}
¹Department of Operative Dentistry, School of Dentistry, Nihon University, Tokyo, Japan, ²Division of Biomaterials of Science, School of Dentistry, Nihon University, Tokyo, Japan
- 090: Zn²⁺ containing Glass Ionomer Cement enhances remineralization of root dentin**
 Y. NAGANO, D. MORI, T. KUMAGAI
 GC Corporation, Tokyo, Japan
- 091: In vivo Kinetics of Carbon Nanotubes Locally Implanted in Mice**
 E. HIRATA¹, M. YUDASAKA², Y. MAEDA¹, T. TANAKA², H. KATAURA², A. YOKOYAMA¹
¹Oral Functional Prosthodontics Department of Oral Functional Science Graduate School of Dental Medicine, Hokkaido University, Sapporo, Japan, ²Nanomaterials Research Institute (NMRI), National Institute of Advanced Industrial Science and Technology (AIST), Japan
- 092: Antibacterial effect of ZnO/CuO nanocomposites with varying copper composition**
 B. ALTANKHISHIG¹, Y. MATSUDA², K. OKUYAMA³, H. YAMOMOTO⁴, M. FUJITA⁵, S. ABE⁶,
 H. SANO⁷, M. HAYASHI⁸, S. SIDHU⁹, T. SAITO¹⁰
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- 093: Dose-dependent antibacterial effect of a fluoride-containing ZnO-CuO nanocomposite**
 M. KHATUN¹, Y. MATSUDA², K. OKUYAMA³, H. YAMOMOTO⁴, M. FUJITA⁵, S. ABE⁶,
 H. SANO⁷, M. HAYASHI⁸, S. SIDHU⁹, T. SAITO¹⁰
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Suita, Japan, ⁹Oral Bioengineering, Institute of Dentistry, Queen Mary University of London, U.K.,
¹⁰Division of Clinical Cariology and Endodontology, Department of Oral Rehabilitation, School of
Dentistry, Health Sciences University of Hokkaido, Japan

094: Characterization of composite resin with GIOMER technology

M. YAMAUTI¹, L.A. FERREIRA², F. PEREIRA², C. LIMONGE², F. LIMEIRA², T. SÁ²,
R.T. PEIXOTO², A. MOREIRA², C. MAGALHÃES², F.J. SILAMI², H. SANO¹

¹Restorative Dentistry, Hokkaido University, Sapporo, JAPAN, ²Restorative Dentistry, Federal
University of Minas Gerais, Belo Horizonte, BRAZIL

095: Evaluation of a novel direct pulp capping material containing Phosphorylated Pullulan

R. ISLAM¹, Y. TOIDA¹, F. CHEN¹, A.A. CHOWDHURY¹, T. TANAKA¹, H. SANO¹,
T. KITAMURA², K. HIDA², T. IIZUKA³, Y. YOSHIDA⁴

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Sapporo, Hokkaido, JAPAN, ³Support Section for Education and Research, Hokkaido University
Graduate School of Dental Medicine, Hokkaido University, Sapporo, Hokkaido, JAPAN, ⁴Department
of Biomaterials and Bioengineering, Graduate School of Dental Medicine, Hokkaido University,
Sapporo, Hokkaido, JAPAN

November 18 (Sun.) 3rd Lecture Room (5th floor)

15:00-16:00 Endodontics and Pulp Biology

096: Coldness changes transmitted-light plethysmography values in young adult human teeth

T. OO, M. KUSANO, S. KAKINO, H. IKEDA, T. OKIJI

Tokyo Medical and Dental University, Graduate School, Department of Pulp Biology and
Endodontics, Tokyo, Japan

November 18 (Sun.) 3rd Lecture Room (5th floor)

15:00-16:00 Immunology / Microbiology / Salivary Gland Biology

097: Morphological influence of osteoporosis and bisphosphonates on mandibular glands of rats

I. NISHIJIMA, W. KAWASHIMA, M. UEMURA, I. TODA, A. TAKEMURA

Department of Anatomy, Osaka Dental University, Osaka, Japan

098: Intravenous Administration of *Streptococcus mutans* Induces IgA Nephropathy in Rats

K. WATO¹, S. NAKA², T. MISAKI³, R. HATAKEYAMA¹, Y. NAGASAWA⁴, S. ITO⁵, H. INABA²,
R. NOMURA¹, M. MATSUMOTO-NAKANO², K. NAKANO¹

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

099: Antibacterial activity of probiotics candidate *Lactobacillus gasseri* against methicillin-resistant *Staphylococcus aureus*

T. ISHIKAWA¹, S. IMAI², T. NAKANO³, T. TERAJ⁴, T. OKUMURA⁵, N. HANADA⁶, H. KAWAHARA⁷

¹Department of Dental Anesthesiology, School of Dental Medicine, Tsurumi University, Yokohama, Japan, ²Department of Translational Research, School of Dental Medicine, Tsurumi University, Yokohama, Japan, ³Department of Dental Anesthesiology, School of Dental Medicine, Tsurumi University, Yokohama, Japan, ⁴Microbiological Research Department, Yakult Central Institute, Yakult Honsha Co., Ltd., Tokyo, Japan, ⁵Microbiological Research Department, Yakult Central Institute, Yakult Honsha Co., Ltd., Tokyo, Japan, ⁶Department of Translational Research, School of Dental Medicine, Tsurumi University, Yokohama, Japan, ⁷Department of Dental Anesthesiology, School of Dental Medicine, Tsurumi University, Yokohama, Japan

100: Characterization of A Novel DNA Binding Protein of *Treponema denticola*

Y. KITAMURA^{1,3}, K. YAMASHITA^{1,3}, Y. KIKUCHI^{2,3}, T. FUKASAWA¹, A. SAITO^{1,3}, K. ISHIHARA^{2,3}

¹Department of Periodontology, Tokyo Dental College, Tokyo, Japan, ²Department of Microbiology, Tokyo Dental College, Tokyo, Japan, ³Oral Health Science Center, Tokyo Dental College, Tokyo, Japan

101: Histological analysis on osteoclastic function in TLR2-deficient mice

Z. QIU¹, T. HASEGAWA¹, H. HONGO¹, T. YAMAMOTO², M. LI³, M. YI⁴, N. AMIZUKA¹

¹Department of Developmental Biology of Hard Tissue, Graduate School of Dental Medicine, Hokkaido University, Sapporo, Japan, ²Japan Self-defence Force Hanshin Hospital, Osaka, Japan, ³Division of Basic Science of Stomatology, The School of Stomatology, Shandong University, Jinan, China, ⁴Department of Central Research, Graduate School of Medicine, Hokkaido University, Sapporo, Japan

102: Adenovirus infection regulates stress granules and P bodies

J.P. JEHUNG, T. KITAMURA, A. MATSUDA, F. HIGASHINO, K. HIDA
Faculty of Dental Medicine, Hokkaido University, Hokkaido, Japan

November 18 (Sun.) 3rd Lecture Room (5th floor)

15:00-16:00 Oral Health Research / Behavioral Science / Dental Education

103: Withdrawn

104: A study of the relationship between schoolchildren's life habits and oral conditions in Taiwan

S. LIAO, Y. SHIN, N. ADACHI, K. SHINADA

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

105: Association of *Helicobacter pylori* in the Oral Cavity with Overweight

T. KADOTA¹, Y. OGAYA¹, S. MATAYOSHI¹, Y. MORITA¹, M. HAMADA², R. NOMURA¹, N. UZAWA², K. NAKANO¹

¹Department Pediatric Dentistry, Osaka University Graduate School of Dentistry, Osaka, Japan, ²Department of Oral and Maxillofacial Surgery II, Osaka University Graduate School of Dentistry, Osaka, Japan

106: Three types of team based learning (TBL) in dental basic science

H. KATSURAGI

Dept.of Microbiology, School of life Dentistry at Niigata, Nippon Dental University, Niigata, Japan

107: Effect of smoking inflammatory response to smoking cessation on human gingival epithelial cells

H. TAKEUCHI-IGARASHI^{1,2}, T. TACHIBANA², Y. NUMABE¹

¹Department of Periodontology, School of Life Dentistry at Tokyo, The Nippon Dental University, Tokyo, Japan, ²Core Research Facilities for Basic Science (Division of Molecular Cell Biology), The Jikei University School of Medicine, Tokyo, Japan

108: The investigate of eating habit especially meal time for university students.

M. YONEDA¹, S. MATSUO², A. IAMI², M. KAKUDO², J. TANAKA², M. TANAKA²

¹Osaka Dental University School of Dentistry, Osaka, Japan, ²Department of Fixed Prosthodontics and Occlusion, Osaka Dental University, Osaka, Japan

109: *In vitro* study of demineralization on porcine teeth in infant formula milk and juice with *Streptococcus mutans*

Y. SHIN, N. ADACHI, K. SHINADA

Department of Preventive Oral Health Care Sciences, TOKYO MEDICAL AND DENTAL UNIVERSITY, Tokyo, Japan

110: Oral Health Care for Patients with Erosive Oral Lichen Planus

A. SUGIMURA¹, Y. JINBU², N. WAKABAYASHI¹, C. INOUE¹, T. NOGUCHI², Y. MORI²

¹Jichi Medical University Hospital, Dentistry, Oral and Maxillofacial Surgery, Saitama, Japan,

²Department of Dentistry, Oral and Maxillofacial Surgery, Jichi Medical University, Saitama, Japan

111: moved to Poster Presentation I (after 052)

November 18 (Sun.) 3rd Lecture Room (5th floor)

15:00-16:00 Oral Medicine, Pathology, and Oncology

112: Palatal mucosal wound healing in type 2 diabetes model rats after administration of an antibacterial drug

H. ORIHARA, M. UEMURA, A. TAKEMURA

Department of Anatomy, Osaka Dental University, Suita, Japan

113: Study of effectiveness of zinc replacement therapy for taste disorders

K. SAKATA¹, Y. YAMAZAKI², J. SATO¹, T. ASAKA¹, E. YAMASHITA¹, N. OHGA¹, Y. KITAGAWA¹

¹Oral Diagnosis and Medicine, Department of Oral Pathobiological Science, Faculty of Dental Medicine, and Graduate School of Dental Medicine Hokkaido University, Sapporo, Japan,

²Gerodontology, Department of Oral Health Science, Faculty of Dental Medicine and Graduate School of Dental Medicine, Hokkaido University, Sapporo, Japan

114: Dental findings in mild and severe hypophosphatasia cases

R. OKAWA, K. KOKOMOTO, T. KADOTA, K. NAKANO

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

115: Effects on Tooth Development by Enzyme Replacement Therapy for Hypophosphatasia

K. KOKOMOTO, R. OKAWA, K. NAKANO

Department of Pediatric Dentistry, Division of Oral Infection and Disease Control, Osaka University Graduate School of Dentistry, Suita, Osaka, Japan

- 116: *Streptococcus mutans*-induced Infective Endocarditis in Severe Dental Caries Model Rats**
S. MATAYOSHI, M. OTSUGU, R. NOMURA, K. NAKANO
Department of Pediatric Dentistry, Osaka University Graduate School of Dentistry, Osaka, Japan
- 117: Oncolytic potential of an E4-deficient adenovirus**
A. MATSUDA¹, Y. MIKAWA², T. KITAMURA¹, F. HIGASHINO¹
¹Department of Vascular Biology and Molecular Pathology, Graduate School of Dental Medicine, Hokkaido University, Sapporo, Japan, ²Tomakomai City Hospital, Tomakomai, Japan
- 118: Effects of Arecoline on Sirtuin1 Gene of Oral Epithelial Cells**
S. ISLAM¹, O. UEHARA^{1,2}, H. MATSUOKA¹, B. ADHIKARI³, D. HIRAKI³, S. TORAYA¹, T. MORIKAWA³, F. HARADA⁴, R. TAKAI⁵, Y. KURAMITSU², H. NAGAYASU⁴, I. CHIBA¹, Y. ABIKO³
¹Division of Disease Control and Molecular Epidemiology, Department of Oral Growth and Development, School of Dentistry, Health Sciences University of Hokkaido, Hokkaido, Japan, ²Research Institute of Cancer Prevention, Health Sciences University of Hokkaido, Hokkaido, Japan, ³Division of Oral Medicine and Pathology, Department of Human Biology and Pathophysiology, School of Dentistry, Health Sciences University of Hokkaido, Hokkaido, Japan, ⁴Division of Oral and Maxillofacial Surgery, Department of Human Biology and Pathophysiology, School of Dentistry, Health Sciences University of Hokkaido, Hokkaido, Japan, ⁵Research Institute of Health Sciences, Health Sciences University of Hokkaido, Hokkaido, Japan
- 119: Effects of *P. gingivalis*-LPS on gene expressions in the mice pancreas**
D. HIRAKI¹, O. UEHARA², F. HARADA^{1,2}, T. MORIKAWA¹, R. TAKAI³, A. ONISHI¹, S. TORAYA², B. ADHIKARI¹, P. NEOPANE¹, D. PAUDEL¹, K. YOSHIDA¹, J. SATO¹, H. MATSUOKA², M. NISHIMURA¹, I. CHIBA², Y. ABIKO¹
¹Division of Oral Medicine and Pathology, Health Sciences University of Hokkaido, Hokkaido, Japan, ²Disease Control and Molecular Epidemiology, Health Sciences University of Hokkaido, Hokkaido, Japan, ³Research Institute of Personalized Health Sciences, Health Sciences University of Hokkaido, Hokkaido, Japan
- 120: Metagenomics of Oral and Intestinal Bacteria using a Next Generation Sequencing System; Preliminary Report**
R. OTSUKA¹, K. MATIN^{2,5}, A. OKADA^{1,3}, M. ARIYOSHI^{1,2}, K. TANIMOTO⁴, J. TAGAMI², N. HANADA¹
¹Department of Translational Research, Tsurumi University School of Dental Medicine, Yokohama, Japan, ²Cariology and Operative Dentistry, Tokyo Medical and Dental University, Tokyo, Japan, ³Department of Operative Dentistry, Tsurumi University School of Dental Medicine, Yokohama, Japan, ⁴Genome Laboratory, Medical Research Institute Tokyo Medical and Dental University, Tokyo, Japan, ⁵Endowed Department of International Oral Health Science, Tsurumi University School of Dental Medicine, Yokohama, Japan
- 121: Involvement of RNase 7 expression in oral inflammatory diseases and oral squamous cell carcinoma**
P. NEOPANE, K. YOSHIDA, B.R. ADHIKARI, D. PAUDEL, T. MORIKAWA, A. ONISHI, D. HIRAKI, J. SATO, M. NISHIMURA, Y. ABIKO
Division of Oral Medicine and Pathology, Graduate School of Dentistry, Health sciences university of Hokkaido, Sapporo, Japan
- 122: The effects of aromatase inhibitor on gingival cells.**
S. HASEGAWA¹, M. YANAGITA³, M. TATSUMI², M. YAMASHITA¹, M. KITAMURA¹, S. MURAKAMI²

¹Periodontology, Osaka University Dental Hospital, Suita, Japan, ²Department of Periodontology, Osaka University Graduate School of dentistry, Suita, Japan, ³Department of Oral Health, Kobe Tokiwa Junior College, Kobe, Japan

123: Clinicopathological study of MTX-LPD in the oral cavity

T. NAKAMURA, Y. JINBU, T. NOGUCHI, Y. MORI

Dentistry, Oral and Maxillofacial Surgery, Jichi Medical University, Tochigi, Japan

124: Effect of polyamine on COL15A1 gene DNA methylation in oral cancer cells

R. TAKAI¹, O. UEHARA², D. HIRAKI³, F. HARADA⁴, K. YOSHIDA³, J. SATO³, M. NISHIMURA³, Y. ABIKO³, T. OHTA¹

¹The Research Institute of Health Sciences, Health Sciences University of Hokkaido, Hokkaido, Japan, ²Disease Control and Molecular Epidemiology, School of Dentistry, Health Sciences University of Hokkaido, Hokkaido, Japan, ³Division of Oral Medicine and Pathology, School of Dentistry, Health Sciences University of Hokkaido, Hokkaido, Japan, ⁴Division of Oral and Maxillofacial Surgery, School of Dentistry, Health Sciences University of Hokkaido, Hokkaido, Japan

125: Combination effect of oncolytic adenovirus with ethanol for human cancer cells

I. AHMED¹, F. HIGASHINO^{1,3}, M.T. ALAM^{2,3}, T. KITAMURA³, A. MATSUDA³, K. MINOWA⁴

¹Department of Molecular Oncology, Hokkaido University Faculty of Dental Medicine and Graduate School of Biomedical Science and Engineering, Hokkaido University, Sapporo, Hokkaido, JAPAN, ²Department of Dental Radiology, Hokkaido University Graduate School of Dental Medicine, Hokkaido University, Sapporo, Hokkaido, JAPAN, ³Department of Vascular Biology and Molecular Pathology, Hokkaido University Graduate School of Dental Medicine., Hokkaido University, Sapporo, Hokkaido, JAPAN, ⁴Department of Dental Radiology, Hokkaido University Graduate School of Dental Medicine, Hokkaido University, Sapporo, Hokkaido, JAPAN

November 18 (Sun.) 3rd Lecture Room (5th floor)

15:00-16:00 Periodontal Research

126: The antimicrobial peptide LL-37 exerts regulatory effects on expression of Toll-like receptor-associated genes in human gingival fibroblasts

M. ABE, M. INOMATA, T. INTO

Asahi University School of Dentistry, Department of Oral Microbiology, Gifu, Japan

127: Effects of plant extracts on Dipotassium glycyrrhizinate induced inhibition of A.a.-LPS induced inflammatory cytokines in human gingival keratinocytes.

F. SHIBA¹, M. MIYAUCHI², C. CHEA², H. FURUSHO², S. IWASAKI¹, R. SHIMIZU¹, K. OHTA³, T. TAKATA²

¹Earth Corporation, Research & Development Headquarters, Research Laboratories, ²Hiroshima University, Department of Oral and Maxillofacial pathobiology, Graduate School of Biomedical and Health Sciences, Hiroshima, Japan, ³Hiroshima University, Department of Oral and Maxillofacial Surgery, Graduate School of Biomedical and Health Sciences, Hiroshima, Japan

128: MiR-150 down-regulates mouse amelotin gene transcription via MKP-5 in gingival epithelial cells.

K. NODA¹, M. YAMAZAKI¹, Y. IWAI¹, M. MEZAWA^{1,2}, H. TAKAI^{1,2}, Y. NAKAYAMA^{1,2}, Y. OGATA^{1,2}

¹Department of Periodontology, Nihon University School of Dentistry at Matsudo, Chiba, Japan,

²Research Institute of Oral Science, Nihon University School of Dentistry at Matsudo, Chiba, Japan

129: MiR-223 suppresses human FDC-SP gene transcription via IKK α and MKP-5 in gingival epithelial cells

I. YASUNOBU¹, K. NODA¹, M. YAMAZAKI¹, M. MEZAWA^{1,2}, H. TAKAI^{1,2}, Y. NAKAYAMA^{1,2}, Y. OGATA^{1,2}

¹Department of Periodontology, Nihon University School of Dentistry at Matsudo, Chiba, Japan,

²Research Institute of Oral Science, Nihon University School of Dentistry at Matsudo, Chiba, Japan

130: Senescence-associated miR-34a suppress osteoblastic differentiation in periodontal stem cell.

K. IKEGAMI¹, M. YAMASHITA¹, M. SUZUKI², A. NISHIKAWA², T. NAKAMURA¹, K. MIKI¹, M. YANAGITA³, M. KITAMURA², S. MURAKAMI²

¹Department of Periodontology, Osaka University Dental Hospital, Suita, Japan, ²Department of

Periodontology, Osaka University Graduate School of Dentistry, Suita, Japan, ³Department of Oral Health, Kobe Tokiwa Junior College, Kobe, Japan

131: Effects of long-term exposure of cigarette smoke on gingival fibroblasts

M. TATSUMI¹, M. YANAGITA^{1,2}, S. HASEGAWA¹, M. SUZUKI¹, K. IKEGAMI¹, M. YAMASHITA¹, M. KITAMURA¹, S. MURAKAMI¹

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

²Department of Oral Health, Kobe Tokiwa Junior College, Kobe, Japan

132: Dissection of the mitophagy dynamics in HPDL cells by fluorescent probe.

M. SUZUKI¹, M. YAMASHITA², K. IKEGAMI², T. NAKAMURA², A. NISHIKAWA¹, K. HASHIMOTO¹, K. MIKI², M. YANAGITA³, M. KITAMURA¹, S. MURAKAMI¹

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November 18 (Sun.) 3rd Lecture Room (5th floor)

15:00-16:00 Prosthodontics and Implantology

133: Endocrown or post: Which is effective to reduce stresses in abutment teeth?

S. BELLI¹, O. ERASLAN², G. ESKITASCIOGLU³

¹Endodontics, Faculty of Dentistry, Selcuk University, Konya, TURKEY, ²Prosthodontics, Faculty of Dentistry, Selcuk University, Konya, TURKEY, ³Pi Academy, Ankara, TURKEY

134: Wet Durability Test of Diamond-Like Carbon Film onto Pure Titanium Surface Simulating Oral Cavity Environment

H. SATO¹, K. FUKAI², Y. KAMEYAMA¹, R. SHIMPO¹, R. YOSHIKAWA³, J. TAGUCHI³, G. MAYANAGI⁴, H. ISHIHATA⁴

¹Department of Mechanical Engineering, Faculty of Engineering, Tokyo City University,

²Mechanics, Graduate School of Integrative Science and Engineering, Tokyo City University, Tokyo,

Japan, ³Nomura Plating Co., LTD., ⁴Graduate School of Dentistry, Tohoku University, Sendai, Japan

135: Comparison of prognosis of the remaining teeth at the jaw inserted prosthesis between dental implants and removable partial dentures for partial edenturism

R. YAMADA¹, K. IWATA¹, T. NOGAWA², Y. TAKAYAMA¹, M. SAITO¹, A. YOKOYAMA¹

¹Department of Oral Functional Prosthodontics, Graduate School of Dental Medicine, Hokkaido

University, Hokkaido, Japan, ²Department of Preventive Dentistry, Graduate School of Dental

Medicine, Hokkaido University, Sapporo, Hokkaido

November 18 (Sun.) 3rd Lecture Room (5th floor)

15:00-16:00 Stem Cell and Regeneration

136: Anti-gravity mechano-dynamic culture revealed an on-line 3D formation of bone matrix

Y. KUBOKI¹, Q. SONG¹, K. YAGAMI², M. KURASAKI¹, T. MATSUMOTO³

¹Graduate School of Earth and Environmental Science, Hokkaido University, Sapporo Japan,

²Department of Oral Health Promotion, Graduate School of Oral Medicine, Matsumoto Dental

University, Shiojiri, Japan, ³Department of Functional Morphology, Division of Cell Regeneration and Transplantation, Nihon University School of Medicine, Tokyo, Japan

137: Histochemical examination on osteoclast-like cells in RANKL^{-/-} mice

Y. MIYAMOTO^{1,2}, M. ABE¹, N. UDAGAWA³, N. AMIZUKA¹, T. HASEGAWA¹

¹Department of Developmental Biology of Hard Tissue, Division of Oral Health Science, Graduate

School of Dental Medicine, Hokkaido University, Sapporo, Japan, ²Department of Dentistry and Oral

surgery, International University of Health and Welfare Atami Hospital, Atami, Japan, ³Department of

Biochemistry, Matsumoto Dental University, Shiojiri, Japan

138: Therapeutic efficacy of autologous ADMPC transplantation for periodontal tissue regeneration

C. MORIMOTO¹, M. TAKEDACHI¹, K. SAWADA¹, S. YAMAMOTO¹, A. HIRAI²,

J. SHIMOMURA², Y. NARUKAWA², Y. KASHIWAGI², T. IWAYAMA², M. KITAMURA¹,

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