The 77th General Session of the Japanese Society for Dental Materials and Devices (JSDMD)

April 10 (Saturday) – 11 (Sunday), 2021
Tower Hall Funabori
4-1-1 Funabori, Edogawa-Ku, Tokyo, 134-0091, Japan

April 10 (Saturday)
• Hall A
  9:55 - 10:00 Opening Remark
  10:00 - 10:30 Young Investigator Award Challenge
A - 1 Application of neutral electrolyzed water for cleaning fixed orthodontic appliances Part. I Cleaning treatment and its bactericidal effect
  ○ Akama Y, Nagamatsu Y, Ikeda H, Shimizu H
    Kyushu Dental Univ.
A - 2 Fabrication of vascularized BMSC/DPSC scaffold-free constructs
  ○ Li Aonan, Sasaki J, Abe G, Katata C, Imazato S
    Osaka Univ.

10:30 - 11:00 General Presentation (Oral Session)
A - 3 Enhanced soft-tissue adhesiveness of acid-treated titanium by sandblast pretreatment
  ○ Yabe A, Okada M, Taketa H, Hara ES, Torii Y, Matsumoto T
    Okayama Univ. Hospital
A - 4 Evaluation of corrosion resistance of Co-Cr-Mo alloy containing high Cr and N using electrochemical impedance technique
  ○ Manaka T, Tsutsumi Y, Hanawa T
    Tokyo Medical and Dental Univ.

14:00 - 15:00 Special Lecture
Mini-review on dental materials & devices through Heisei period
  ○ Tamaki Yukimichi
    Asahi University

15:00 - 16:30 General Presentation (Oral Session)
A - 5 Evaluation of color change of zirconia immersed in pigment-containing food and beverage
  ○ Matsumoto H, Yamamoto T, Hayakawa T
    Tsurumi Univ.
A - 6 Microstructural changes of dental zirconia with fast firing
  ○ Ban S, Matsubara M, Asakura M, Tsuruta S, Kawai T
    Aichi Gakuin Univ.
A - 7 Histomorphometric analysis of bone regeneration by OCP/PLGA composites in rat standardized femur defects
  ○ Suzuki O, Hamai R, Shiwaku Y, Anada T
    Tohoku Univ.
A - 8 Observation of bone regeneration by implantation of octacalcium phosphate material mixed with autologous bone in rat calvarial bone defect model
  ○ Ozaki H, Hamai R, Shiwaku Y, Suzuki O
    Tohoku Univ.
A - 9 Bond strength of bonding agents with different polymerization modes at root canal dentin
    Iwate Medical Univ.
A - 10 Fabrication of novel tooth model mimicking human enamel for dental preparation training
  ○ Tokunaga J, Ikeda H, Nagamatsu Y, Awano S, Shimizu H
    Kyushu Dental Univ.
• Hall B
10:00 – 16:00 General presentation (Poster Session)
(11:05 - 11:50 Discussion)

P - 1 Development of the intra oral scanner using moire lens
○Igarashi K, Igarashi M, Ohkuma K
Nippon Dental Univ.

P - 2 Evaluation on accuracies of 3-D facial image by hand-held scanner
○Tsuchida Y, Iwasaki N, Shiozawa M, Ha RB, Handa K, Takahashi H
Tokyo Medical and Dental Univ.

P - 3 Semi-powered exoskeleton with regulation of jaw movement for oral functional rehabilitation and training
○Kameda T, Sakamoto M, Terada K
Nippon Dental Univ.

P - 4 Application of neutral electrolyzed water for cleaning fixed orthodontic appliances Part.2 Dissolution of component elements from metal appliances
○Nagamatsu Y, Akama Y, Ikeda H, Shimizu H
Kyushu Dental Univ.

P - 5 Effects of thickness on color appearance of multi-layer CAD/CAM composite resin blocks
○Ha Rou Bing, Tsuchida Y, Iwasaki N, Takahashi H
Tokyo Medical and Dental Univ.

P - 6 Study on the discoloration of CAD/CAM resin blocks for anterior crowns
Meikai Univ.

P - 7 Fabrication of mechanically biocompatible CAD/CAM composite block
○Ikeda H, Nagamatsu Y, Shimizu H
Kyushu Dental Univ.

P - 8 Study on hybrid resin composites using CAD/CAM (Part. 10) - Adhesion strength of resin composite blocks for molars to resin luting agent -
○Kuroda T, Katayama Y, Nakao S, Kameyama Y, Ohashi K, Nihei T
Kanagawa Dental Univ.

P - 9 Color measurement of multilayered restoration materials for CAD/CAM
○Tsuruta S, Ban S, Mizuno M, Uematsu Y, Aimu K, Yamamoto I, Kawai T
Aichi Gakuin Univ.

P - 10 Effect of abutment tooth color on aesthetics of CAD/CAM anterior crowns
○Kawata K, Teramae M
SHOFU Inc.

P - 11 Characteristics of tooth bond strength of glass ionomer cements by saliva contamination: Comparison with composite resin systems
○Irie M, Maruo Y, Nishigawa G, Minagi S, Matsumoto T
Okayama Univ.

P - 12 Bond strength of resin luting cement to dentin after resin coating
○Wada Y, Katayama Y, Ohashi K, Hirayama S, Nihei T
Kanagawa Dental Univ.

P - 13 Shear bond strength to root dentin of 4-META/MMA-TBB resin containing antibacterial agents
○Yamamoto M, Inokoshi M, Shimizubata M, Nozaki K, Takahashi R, Yoshihara K, Minakuchi S
Tokyo Medical and Dental Univ.

P - 14 Effect of double-layer application on the early enamel bond strength of universal adhesives
○Hirokane E, Takamizawa T, Kasahara Y, Ishi R, Yokoyama M, Tamura T, Tsujimoto A, Miyazaki M
Nihon Univ.

P - 15 Influence of a primer resembling universal adhesive on the bonding effectiveness of an experimental two-step self-etch adhesive
○Tamura T, Takamizawa T, Kasahara Y, Ishii R, Yokoyama M, Hirokane E, Tsujimoto A, Miyazaki M
Nihon Univ.

P - 16 Evaluation of wear resistance of bond layer with new 2-step bonding agent "G2-Bond Universal"
○Yamashita M, Hirano K, Fusejima F
GC Corp.
P - 17 Influence of primer component on bond strengths of resin cements to zirconia
○Yoshida K, Sawase T
Nagasaki Univ.

P - 18 Bond strength of resin cement between cast titanium and bovine tooth or resin composite core
Meikai Univ.

P – 19 Fibronectin immobilization on the zirconia surface using a tresyl chloride-activated method
○Furuya H, Hirota M, Hayakawa T
Tsurumi Univ.

P - 20 Effect of micro/nano-patterns to pit formation by osteoclasts
○Akasaka T, Nakanishi K, Yoshida Y
Hokkaido Univ.

P - 21 Recalcification of bioapatite used calcium-containing discarded eggshell
○Mochizuki C, Chiba T, Sakai Y, Nakamura H, Hirota M, Hayakawa T
BIOAPATITE, Inc.

P - 22 Study of cell viability by commercial denture lining material
○Yokoyama T, Nakai M, Hashimoto Y, Imai K
Osaka Dental Univ.

P - 23 Analysis of the initial stages of tooth mineralization from a Material Science viewpoint
○Anada R, Hara ES, Nagaoka N, Okada M, Kamioka H, Matsumoto T
Okayama Univ.

P - 24 Nanomechanical properties of peritubular and intertubular dentin in the mantle dentin layer
○Inoue T, Saito M, Nishimura F, Miyazaki T, Shibata Y
Showa Univ.

P - 25 Difference in cell viability between with and without visible light-irradiation by camphorquinone
containing medium
○Shirai T, Hashimoto Y, Imai K
Osaka Dental Univ.

April 11 (Sunday)
•Hall A

9:30 - 10:30 General Presentation (Oral Session)

A – 11 Bone response of thin zirconia film coated implant with same surface conditions as substrate
○Tokunaga Y, Hirota M, Sato M, Hayakawa T
Tsurumi Univ.

A - 12 Microstructural evolution of LSD-YSZ Composites Prepared by Solid State Reaction Method
○Kazi Gulsanarasathi
Yamagata Univ.

A - 13 Effects of PEEK surfaces modified with supramolecular polyrotaxanes via photoinduced self-initiated graft polymerization on osteoblast differentiation
○Arisaka Y, Tamura A, Yui N
Tokyo Medical and Dental Univ.

A - 14 Comparison of cell viability by CAD/CAM hybrid resin fine powder
○Nakai M, Yokoyama T, Hashimoto Y, Imai K
Osaka Dental Univ.

•Hall A
10:30 - 11:10 Suponsored Seminar/ Seminar for Dental Materials Adviser, Senior Adviser
Mechanical features and clinical applications of dental lasers
~Features of Er:YAG Lasea 「Erwin AdvErL EVO」 and clinical application～
○Shioya Kimitaka
Noel Dental Clinic
13:00 - 14:30 Symposium
1. What do you need for future dental bonding?
   ○Nihei Tomotaro
   Kanagawa Dental University

2. Shift from "invisible" dental adhesion to "attractive" dental adhesion
   ○Kameyama Atsushi
   Matsumoto Dental University

3. Adhesion in Pediatric Dentistry
   ○Yawaka Yasutaka
   Hokkaido University

4. Clinical capability of zirconia resin-bonded prostheses
   ○Komine Futoshi
   Nihon University School of Dentistry

5. Realize adhesion to protect tooth substance
   ○Tanoue Naomi
   Nagasaki University Hospital

14:30 Closing Remark

*Hall B
9:30 - 14:00 General Presentation (Poster Session)
(11:15 - 12:00 Discussion)

P - 26 Development of electrically-debondable dental cements (Part 6) - The effects of ionic liquids on cytotoxicity
   ○Kajimoto N, Sato T, Maruta M, Uyama E, Sekine K, Hamada K, Tsuru K
   Fukuoka Dental College

P - 27 Effect of hydroxyapatite/collagen addition on the properties of the carbonate apatite cement
   ○Sato T, Maruta M, Kajimoto N, Kikuchi M, Tsuru K
   Fukuoka Dental College

P - 28 Characteristic evaluation of multi-layer zirconia blocks
   ○Iwasaki N, Tsuchida Y, Ha RB, Shiozawa M, Takahashi H
   Tokyo Medical and Dental Univ.

P - 29 Investigation of antibacterial molecule supporting effect of commercially available high translucent zirconia
   ○Kono H, Sugiura Y, Higashinakao T, Kikuchi M
   Kagoshima Univ.

P - 30 Improved mechanical properties of highly-translucent zirconia by fusing monoclinic zirconia and silica on its surface
   ○Okada M, Matsumoto T
   Okayama Univ.

P - 31 Crystal orientation and biaxial flexural strength of pressed lithium disilicate
   ○Matsubara M, Ban S, Tsuruta S, Asakura M, Kawai T
   Aichi Gakuin Univ.

P - 32 CAD/CAM fabricated prosthetic accuracies of two different Lithium Disilicate Blocks
   ○Yamamoto K, Fusejima F
   GC Corp.

P - 33 Effect of building direction on bending strength of FDM-formed PEEK
   ○Miura D, Ishida Y, Aoki H, Shinya A
   Nippon Dental Univ.

P - 34 Shear bond strength of high-performance thermoplastic resin PEKK to root canal dentin
   ○Kasahara M, Someya T, Kagoura H, Munakata R, Hattori M
   Tokyo Dental College

P - 35 Basic experiment on X-ray impermeableness of PEEK crown
   Hiroshima Univ.
Preparation of PMMA-based resin for 3D-printing and its application to a temporary crown
Kyushu Dental Univ.

Reversible hydrophilicity/hydrophobicity transition of a resin surface caused by thermal switching - environmental polarity and transition temperature -
Health Sciences Univ. Hokkaido

Mechanical properties and buffering capacity of auto-polymerizing resin incorporated with S-PRG filler
○Kaga N, Morita S, Tashiro S, Kawaguchi T
Fukuoka Dental College

Evaluation based on 3-point bending strength of high-strength hard resin bridge
○Matsumoto K
Shiken Co., Ltd.

Evaluation of color matching ability of experimental flowable resin composite applying structural coloration
○Saegusa M, Kurokawa H, Arai Y, Takahashi N, Shibasaki S, Miyazaki M
Nihon Univ.

Evaluation of color matching ability of resin composite applying structural coloration - Influence of cavity depth on color adaptation
○Shiratsuchi K, Kurokawa H, Saegusa M, Sugimura R, Suda S, Miyazaki M
Nihon Univ.

Research on prototype resin composites with different filler particle sizes
○Nakao S, Kuroda T, Katayama Y, Ohasi K, Nihei T
Kanagawa Dental Univ.

Study on characteristics of temporary resin composite (Part 3) – Color changes of each resin composite -
Kanagawa Dental Univ.

Study on novel wash type alginate impression material (Part 2) - The tear strength to the impression materials -
○Nihei T, Kuroda T, Wada Y, Ohashi K, Kimoto K
Kanagawa Dental Univ.

Evaluation of impression accuracy of Aroma Injection
○Shibuya Y, Fusejima F
GC Corp.

Effect of post-heat treatments on metal-ceramic bond properties of Co-Cr-Mo-W alloy fabricated by selective laser melting
○Hein Linn Htat, Kajima Y, Takaichi A, Hla Htoot Wai Cho, Kamijo S, Hanawa T, Wakabayashi N
Tokyo Medical and Dental Univ.

Low temperature-PTFE coating can improve metallic appearance of orthodontic titanium wires without changing their mechanical property
○Kameda T, Terada K, Ohkuma K
Nippon Dental Univ.

The inhibition of root dentine demineralization by hydraulic temporary sealing material containing bioion glass
○Hoshino T, Mori D, Fusejima F
GC Corp.

Effects for ion-diffusion and inhibition of demineralization in dentin by low concentration of titanium fluoride solution
○Okuyama K, Matsuda Y, Yamamoto H, Shintani K, Komada Y, Horiguchi T, Saito T, Hayashi M, Tamaki Y
Asahi Univ.

Effects of surface treatment and lamination temperature on bonding strength of polyolefin-polystyrene mouthguard sheet materials
○Churei H, Tanabe G, Wada T, Uo M, Takahashi H, Ueno T
Tokyo Medical and Dental Univ.