

PROGRAM

January 18 (Mon)

12:30-13:00 **Opening Ceremony**

Dean and Professor Keiichi SASAKI

Graduate School of Dentistry, Tohoku University, Japan

President and Professor Susumu SATOMI

Tohoku University, Japan

Professor Mitsuo NIINOMI

Institute for Materials Research, Tohoku University, Japan

Dean and Professor Shinichi IZUMI

Graduate School of Biomedical Engineering, Tohoku University, Japan

13:00-15:00 **Symposium I: Biomaterials in interface science**

Chairpersons : Professor Takashi GOTO

Institute for Materials Research, Tohoku University, Japan

Professor Takayuki NARUSHIMA

Department of Materials Processing, Tohoku University, Japan

S1-1 Low-modulus titanium alloys suitable for rods in spinal fixation devices

Professor Mitsuo NIINOMI

Institute for Materials Research, Tohoku University, Japan

S1-2 Mechanical and biological response of biomedical Co-Cr-Mo alloy produced by additive manufacturing using electron beam melting (EBM)

Professor Akihiko CHIBA

Institute for Materials Research, Tohoku University, Japan

S1-3 Fatigue properties of NiTi wires used in biomedical applications

Professor Takayuki NARUSHIMA

Department of Materials Processing, Tohoku University, Japan

S1-4 Dealloying Toxic Ni from SUS316L Surface

Professor Hidemi KATO

Institute for Materials Research, Tohoku University, Japan

S1-5 Bio-ceramic Coating by Laser Chemical Vapor Deposition

Professor Takashi GOTO

Institute for Materials Research, Tohoku University, Japan

15:15-17:15 **Symposium II: Innovation for oral science and application**

Chairpersons : Professor Keiichi SASAKI

Graduate School of Dentistry, Tohoku University, Japan
Associate Professor Guang HONG
Graduate School of Dentistry, Tohoku University, Japan

S2-1 Where is the fairway of our voyage?

Dean and Professor Keiichi SASAKI
Tohoku University Graduate School of Dentistry, Sendai, Japan

S2-2 Development of Robot-assisted Surgery (RAS) System for CMF

Dean and Professor Chuanbin GUO
Peking University School and Hospital of Stomatology, Beijing, China

S2-3

Dean and Professor Jae-II LEE
Seoul National University School of Dentistry, Korea

S2-4 How to facilitate the movement of qualified dental professionals to provide dental services across ASEAN member states?

Dean and Professor Suchit POOLTHONG
Chulalongkorn University Faculty of Dentistry, Thailand

S2-5 Exemplifying Applied Innovation in Oral Science: Can tongue progenitors repair broken heart? – Kinship between oral and cardiac development and stem cell biology

Dean and Professor Christopher PECK
University of Sydney Faculty of Dentistry, Australia

S2-6 Pursuing Excellence and Humanism

Professor Seokwoo S. LEE
*Department of Dental Education School of Dentistry,
Chonnam National University School of Dentistry, Korea*

S2-7 Biomaterials in caries prevention and treatment

Associate Professor Lei CHENG
Sichuan University West China School of Stomatology, Chengdu, China

17:15-18:00 **Poster viewing**

18:00-19:30 **Banquet**

January 19 (Tue)

9:15-10:15 **Special Lecture:**

Cross-talk between Bone Cells and the Regulation of Bone Remodeling

Professor Roland BARON

*Harvard Medical School and Harvard School of Dental Medicine, Boston,
MA, USA*

10:15-12:15 **Symposium III: Regenerative oral science**

Chairpersons : Professor Osamu SUZUKI

Graduate School of Dentistry, Tohoku University, Japan

Professor Satoshi FUKUMOTO

Graduate School of Dentistry, Tohoku University, Japan

S3-1 Efficacy of calcium phosphate-based scaffold materials on mineralized and non-mineralized tissue regeneration

Professor Osamu SUZUKI

Graduate School of Dentistry, Tohoku University, Japan

S3-2 Gap junctional communication regulates salivary gland branching morphogenesis

Professor Satoshi FUKUMOTO

*Division of Pediatric Dentistry Graduate School of Dentistry,
Tohoku University, Japan*

S3-3 iPS Cell-Based Strategies in Bone Tissue Engineering

Professor Hiroshi EGUSA

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

S3-4 Emerging Regenerative Approaches for Periodontal Regeneration

- the future perspective of cytokine therapy and stem cell therapy -

Professor Shinya MURAKAMI

Graduate School of Dentistry, Osaka University, Japan

S3-5 Molecular mechanisms regulating tooth number

Professor Atsushi OHAZAMA

*Division of Oral Anatomy, Department of Oral Biological Science, Niigata
University Graduate School of Medical and Dental Sciences, Japan*

13:00-14:30 **Poster Discussion & Competition**

14:45-16:45

Symposium IV: Medical device innovation for diagnosis and treatment of biosis-abiosis interface

Chairpersons : Professor Yoshifumi SAIJO

Graduate School of Biomedical Engineering, Tohoku University, Japan

Professor Ryoichi NAGATOMI

Graduate School of Biomedical Engineering, Tohoku University, Japan

S4-1 Smart Instrument Design for Challenging Minimally Invasive Applications

Professor Jenny DANKELMAN

Department of BioMechanical Engineering,

Delft University of Technology, Netherlands

S4-2 Open Technologies and Workflows in Digital Dentistry

Professor Fong-Chin SU

Medical Device Innovation Center and Department of Biomedical

Engineering National Cheng Kung University, Taiwan

S4-3 Detection of early caries by laser-induced breakdown spectroscopy

Professor Yuji MATSUURA

Graduate School of Biomedical Engineering, Tohoku University

S4-4 New Technology for Bio-Medical Interface Creation utilizing Powder Jet Deposition

Professor Tsunemoto KURIYAGAWA

Graduate School of Bio-Medical Engineering, Tohoku University, Japan

S4-5 Acoustic diagnosis device for dentistry

Assistant Professor Kouki HATORI

Graduate School of Dentistry, Tohoku University, Japan

16:45-17:15

Closing Ceremony

Poster Award Presenting Ceremony

Vice-Dean and Professor Nobuhiro TAKAHASHI

Graduate School of Dentistry, Tohoku University, Japan