

International Symposium 2020

Date and time: December 4, 2020 (18:00–20:10 JST)

Style: Web conferencing system

Program:

Session 1:

Current status of TMDU

- Opening address from the Director of Institute of Global Affairs (Prof. Noriyuki WAKABAYASHI)
- Farewell messages from retiring professors (Profs. Junji TAGAMI, Hiroyuki MIURA, Kouji ARAKI, and Hidekazu TAKAHASHI).
- Messages from new appointees or about newly launched projects (Dean Tetsuya YODA, Prof. Sachiko ISEKI, Dr. Koji MIZUTANI, and Dr. Naoko SEKI)

Session 2:

Small group discussion on a topic/topics of your choice from the list provided below, with TMDU alumni and TMDU affiliates worldwide.

- Research (MC: Prof. Sachiko ISEKI)
- Education (MC: Prof. Ikuko MORIO)
- Clinical care (MC: Prof. Junji TAGAMI)

Summary:

Tokyo Medical and Dental University held “the International Symposium 2020” to strengthen our global network with our international dental alumni by sharing information on dental research, education, and clinical care.

A total of 76 participants from 27 countries joined the symposium to exchange information and build networks.

Starting with the opening address from the Director of Institute of Global Affairs, Prof. Noriyuki WAKABAYASHI, session 1 began with messages from our honorable retiring professors.

Prof. Kouji ARAKI and Prof. Hidekazu TAKAHASHI



Prof. Junji TAGAMI and Prof. Hiroyuki MIURA



Messages from new appointees or about newly launched projects
(Dean Tetsuya YODA, Prof. Sachiko ISEKI, Dr. Koji MIZUTANI, and Dr.
Naoko SEKI)

Prof. Tetsuya YODA and Prof. Sachiko ISEKI



Dr. Koji MIZUTANI introduced the Center for Advanced Interdisciplinary
Dentistry:

<http://www.tmd.ac.jp/denthospital/sentan/>

(in Japanese)

Dr. Naoko SEKI introduced the TMDU-style global clinical education courses, Essential Expertise for Clinical Dentistry for TMDU graduate students, and the International Faculty Development Course for world dental professionals.

IFDC AY2020:

http://www.tmd.ac.jp/english/international/globalization/southeast-asia_2_/IFDC2020Edu/IFDC2020Edu.html

Previous reports:

http://www.tmd.ac.jp/english/international/globalization/southeast-asia_2_/index.html

Session 2 consisted of group discussions and presentations. The group discussion themes were:

- Research (MC: Prof. Sachiko ISEKI)
- Education (MC: Prof. Ikuko MORIO)
- Clinical care (MC: Prof. Junji TAGAMI)

After 40 minutes of discussion, representatives from each group made short presentations.

In some groups, before the group discussion, TMDU faculty or alumni made short presentations on related topics. In addition, they provided further information on those topics.

Group 1:

International collaborative research

Research
MC: Sachiko Iseki
Scribe: Antonin Tichy
Presenter: Antonin Tichy

- **Prof. AOKI** (TMDU) presented his research on the membrane-bound RANK-ligand (RANKL)
- Development of a peptide for blocking RANK
 - Primary objective: prevent bone resorption
 - Found to increase bone formation
- RANKL was found to work as a receptor for osteoblasts
 - Stimulated by RANK-bearing extracellular vesicles from mature osteoclasts
 - Activation of the alcaic phosphatase (ALP) and induction of bone formation
- Future perspective: New antiresorptive therapy (e.g. Bisphosphonates) which reduces bone formation

International collaborative research

Research
MC: Sachiko Iseki
Scribe: Antonin Tichy
Presenter: Antonin Tichy

- **Dr. BAKHSH** (Saudi Arabia) presented his research on the digital imaging of composite restorations
- Observation of interfacial gap formation using CP-OCT (cross-polarization optical coherence tomography)
 1. Exposure of dental tissues to cigarette smoke increased interfacial gap formation at axial walls
 - High burning temperature, heavy metal deposition on the surface
 2. The adaptation of bulk-fill composites
 - Techniques to minimize the effect of polymerization shrinkage

International collaborative research

Research
MC: Sachiko Iseki
Scribe: Antonin Tichy
Presenter: Antonin Tichy

- **Dr. CHAREONVIT** (Thailand) presented her research on the differentiation of neural crest cells conducted at TMDU
- Collaborative research on tooth development and the effect of electric current
 - High-voltage electricity might affect tooth development

Group 2

Critical thinking in dental education

Education
MC: Ikuko Morio
Scribe: Kittichai Sireerat
Presenter: Dr. Nurtami Soedarsono

- Is critical thinking important for dental education?
- It is a challenge in terms of assessment.
 - Important for life-long learning.
 - Soft skills are important for 21st-century dental education.
 - Important for student-centered learning.
 - Important to make clinical decisions.
 - Critical appraisal is also important.

Critical thinking in dental education

Education
MC: Ikuko Morio
Scribe: Kittichai Sireerat
Presenter: Dr. Nurtami Soedarsono

- Prohibiting factors
- It is difficult to incorporate critical thinking in curriculum.
 - Cultural difference affects critical thinking.
 - Old teaching methods cannot be used to improve critical thinking skills.
 - Significance of critical thinking in dental practitioners needs to be shared among dental students in an early stage.

Group 3

Dr. Keichi Hosaka: Power of direct composite restoration enhanced by digital workflow

Concept: Intraoral Scanning→ Digital design (waxup)→3D print mockup→ Create clear matrix

Case 1: Upper anterior missing incisors: additive recontouring to improve esthetics

Case 2: Lower anterior missing incisors: Direct short-fiber reinforced composite adhesive bridge

Prof. Akira Aoki: Laser in Periodontology

- Er:YAG assisted flapless periodontal pocket surgery
- Bone regenerative Er:YAG laser treatment before (debridement) and after autogenous bone grafting, significantly improved bone regeneration

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Prof. Choltacha Harnirattisai

- One of the first students of Cariology and Operative Dentistry
- Graduated TMDU in 1992
- Currently Professor of Operative Dentistry in Mahidol University, Bangkok, Thailand

We believe that international collaboration and staying updated about advancements in research, education, and clinical care are very important; with our TMDU network, many projects are possible.

We believe this symposium allowed us to strengthen our bond.