

# Division of Oral Regenerative Medicine

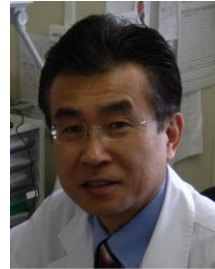
## Department of Human Biology and Pathophysiology

### Outline

Our team is a hub for dentin matrix-based therapy in bone regenerative surgery. Human dentin graft was clinically achieved first in 2002 by our team, and has been expanding and outgrowing rapidly as *Dental Innovation*. Bone is reborn by dentin. The Asian staffs with ambitious spirit have been working to become a cross-linking between basic and clinical for worldwide medical contribution.

### Faculty members

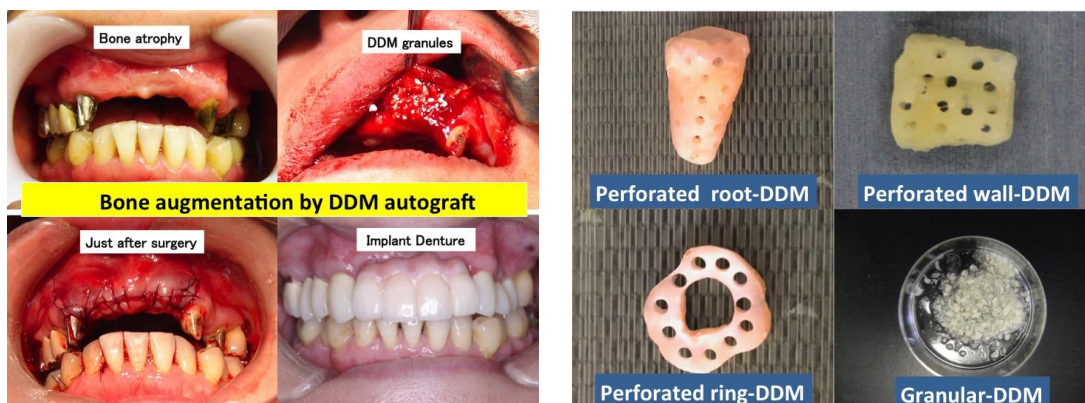
**Chief Professor** Dr. Masaru Murata (DDS, PhD)



### Education and Professional position

- 1988 D.D.S., School of Dentistry, Hokkaido University, Sapporo, Japan
- 1993 Ph.D., Graduate School of Dentistry, Hokkaido University
- 1993-8 Assistant Professor, Oral Pathology, Okayama University
- 1995 Researcher, Medical Biology, University of Louis Pasteur, France
- 2004-5 Project leader, Bio-recycle Medical System of Teeth, Japan METI grant
- 2007-16 Associate Professor, Oral and Maxillofacial Surgery, HSUH, Japan
- 2013-16 Visiting Professor, Pioneer Dental College, Dhaka, Bangladesh

\*Awards: 4, Licenses: 4, Patents: 3 (Japan), 1 (USA)



**Foreign Researcher** Dr. Md. Arafat Kabir (PhD, from Bangladesh), Awards: 4

### OG/OB

**Dr. Mamata Shakya** (2018 PhD, Katmandu University, from Nepal)

**Dr. Kenji Yokozeki** (2019 PhD, HSUH, from Sapporo)

**Dr. Keiko Onji** (2019 PhD, Takeru Dental Clinic, from Tokyo)

**Dr. Bowen Zhu** (PhD-course student, from China)



## Main research in progress

Bone regeneration

1. Patient-own dentin graft
2. Ultrasonically demineralized bone/dentin (DBM/DDM)
3. Development of biomimetic materials

## Accomplishments

Excellent Presentation Award: 2019 Hard Tissue Regenerative Biology

Excellent Presentation Award: 2019 Living Body-related Ceramics Conference

## Main publications (2017-2019)

1. Murata M, Okubo N, Shakya M, Kabir MA, Yokozeki K, Zhu B, et al.

Dentin Materials as Biological Scaffolds for Tissue Engineering.

In: Biomaterial-supported Tissue Reconstruction or Regeneration.

ISBN: 978-1-83880-378-0, *IntechOpen, U.K*, pp25-36, 2019

2. Shakya M, Yokozeki K, Akazawa T, Murata M.

Rapid bone induction of cortical bone treated with ultrasonic demineralization in acidic electrolyzed water. *Journal of Hard Tissue Biology*, 27:269-271, 2018

3. Kabir MA, Murata M, Akazawa T, Kusano K, Yamada K, Ito M.

Evaluation of perforated demineralized dentin scaffold on bone regeneration in critical-size sheep iliac defects. *Clin Oral Implants Res.* 28(11): e227-235, 2017