

# **The 11<sup>th</sup> Conference of Asian International Association of Dental Traumatology (11<sup>th</sup> AADT, Tsukuba)**

## **– Call For Papers –**

**Conference Chairman: Prof. Toru Yanagawa**, Department of Oral and Maxillofacial Surgery, Institute of Medicine, University of Tsukuba, Tsukuba, Ibaraki, JAPAN

**Conference Secretary: Assistant Prof. Fumihiko Uchida**, Department of Oral and Maxillofacial Surgery, Institute of Medicine, University of Tsukuba, Tsukuba, Ibaraki, JAPAN

**Date: 29-30 March 2025**

**Conference format: Held in the Journal**

### **ABSTRACT**

#### ***Instruction***

1. All presentation must be done in English (Font: Times New Roman, 12 points).
2. Size: A4
3. Title (Font: Times New Roman, 14 points, Bold), Name (e-mail of corresponding presenter), Affiliation and address, Your photo (about 3 X 4 cm), Abstract (maximum 300 words, Objective, Materials & Method, Results, Conclusion), Key words (3 – 5 words)
4. Brief CV (Educational background and Professional experience) Halfpage
5. Contact to: Dr. Fumihiko Uchida, University of Tsukuba, e-mail: [The11thAADT@gmail.com](mailto:The11thAADT@gmail.com)
6. We are accepting your presentations, so we are looking forward to applying for a presentation

**\* Abstract submission deadline : Saturday, 4 January, 2025**

## 【For Example】

### **Peroxiredoxin acts protectively on osteoclasts against oxidative stress when teeth are injured.**



#### **Prof. Toru Yanagawa**

Professor, Department of Oral and Maxillofacial Surgery, Institute of Medicine, University of Tsukuba.

1-1-1 Tennodai, Tsukuba, Ibaraki, 305-8575, JAPAN

e-mail: [xxxx@md.tsxxba.ac.jp](mailto:xxxx@md.tsxxba.ac.jp)

**Objects:** When teeth are traumatized, the jawbone undergoes oxidative stress due to inflammation and other factors. Peroxiredoxin is a thioredoxin-dependent hydrogen peroxide scavenging enzyme as an antioxidant protein with isoforms I - IV. In the present study, we investigated the effects of oxidative stress on bone using Peroxiredoxin I (Prx I) knockout mice.

**Materials and Methods:** Prx I knockout mice were generated from ES clones (OST422296: Lexicon Genetics Inc.) using the gene trap method. These mice were compared with wild-type mice by X-ray examination, microfocus CT imaging, bone densitometry by DXA, and bone morphometry. Macrophages were also collected to examine their ability to resist oxidative stress.

**Result:** Screening by simple radiography revealed no obvious abnormalities, but microfocus CT showed increased bone cortex in Prx I knockout mice, and bone densitometry by DXA showed increased bone density. In addition, bone morphometry showed a decrease in osteoclast count and osteoclast surface.

**Conclusions:** These results suggest that loss of Prx I in response to trauma-induced oxidative stress may result in bone mutations that are more damaging to the osteoclast lineage.

**Key Words:** Peroxiredoxin, Oxidative stress, Knockout mouse, Bone morphometry, DXA.

#### **Brief CV**

1999-2010: Assistant Professor, Department of Oral and Maxillofacial Surgery, Institute of Medicine, University of Tsukuba.

2010-2018: Associate Professor, Department of Oral and Maxillofacial Surgery, Institute of Medicine, University of Tsukuba.

2018-present: Professor, Department of Oral and Maxillofacial Surgery, Institute of Medicine, University of Tsukuba. Ibaraki Clinical Education and Training Center, University of Tsukuba Hospital.