Biostructural Science

1. Staffs and Students (as of April, 2010)
Professor Yoshiro TAKANO
Associate Professor Makoto J. TABATA
Assistant Professor Otto BABA
Project Assistant Professor (Good Practice Education Program)
Masayuki YOSHIMI
Technician Hachiro ISEKI
Graduate Student Masud AHMAD, Devi Sewvandini ATUKORALA,
Ravindra Kumar RATNAYAKE,
Dawud ABDUWELI

2. Purpose of Education
[Undergraduate Education]
Provide dental students with the essential knowledge and methods of studies necessary to understand fundamentals of structure and function of the human body, based primarily on macroscopic- and microscopic anatomy (Histology), including dissection lab works which lasts nearly 3 months. Emphasis is placed on the structure and function of oral and maxillofacial regions including teeth, periodontal tissues, salivary glands and temporomandibular joints, as well as muscles and nerves related to these structures. These comprise major part of the largest teaching module of the 3rd-year dental education curriculum and are expected to build solid basis for future studies of advanced dental science and clinical medicine.

[Graduate School]
Provide graduate students with updated information of mechanisms of biological mineralization, structural features, as well as ontogenic and evolitional aspects of the development of biological hard tissues, and give a lab course of essential methods for structural analyses of hard tissues, particularly of teeth and periodontal tissues.

3. Research Subjects
The mechanisms of dental and periodontal tissue formation and their regeneration is the central focus of our research. Followings are rough description of current research subjects in our laboratory.
1) Biological mineralization.
2) Induction and/or regeneration of dental and periodontal tissues.
3) Reaction-diffusion phenomenon in biological systems
4) Origin and evolution of tooth
5) Molecular mechanisms of tooth development
6) Role of dentin matrix proteins in the development of root and periodontal tissues
7) Sensory apparatus in masticatory systems.

4. Publications
Original Article

Abstracts


[Invited Lectures]

2. Takano Y: Dental Education and Research at the Tokyo Medical and Dental University. Oct 29, 2010, Deans Conference at Chonnam National University School of Dentistry, Korea.