

[Academics] Masaru Murata

[Course aims]

Regenerative medicine is an advanced form based on biomaterials science. PhD-course students must learn the natural structure and components of organ and medical materials for all patients in the field of oral regeneration. The aims are to understand the oral specificity and to study functional structure from human natural organs. This course addresses the importances of the structure not to prevent neovascularization and the growth factors.

[Course objectives]

1. To understand the unit structure and function of tooth and jaw.
2. To explain collagen.
3. To explain hydroxyapatite.
4. To explain mono or compound biomaterials.

[Course content]

Class	Theme	Content	Academics
1	Two specificities in oral cavity	Specificity in oral regenerative surgery	Masaru Murata
2	Living body components 1	Collagen and hydroxyapatite	Masaru Murata
3	Living body components 2	Growth factors and body fluid	Masaru Murata

[Class implementation method]

Combination of face-to-face learning and distance learning

Class implementation depends on the implementation policy of each department (graduate school) or school.

[Grading policies]

Oral or written examination.

[Textbook]

Advances in Oral Tissue Engineering (ed.M.Murata and I-W.Um, Quintessence Publishing, Chicago)

[Reference book]

Regenerative medicine of tooth and bone(Gakusaikikaku, in Japanese)

Science of bone (MDP, in Japanese)

[Preparation for course]

Students must read the textbook and the related papers.