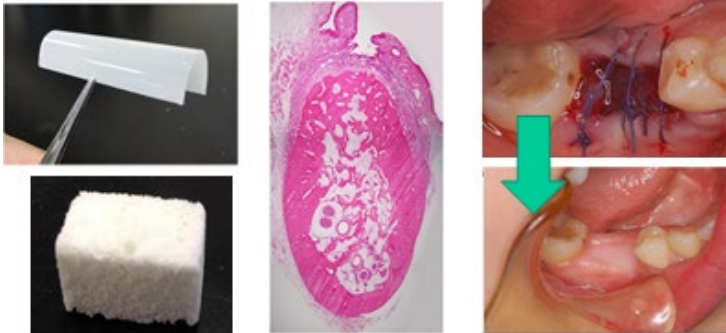


Innovative ceramic materials

Keywords [Biomaterials, Zeolites, Chemical process]

Prof. Hidero UNUMA

【1. Biomaterials】



【2. Monolythic zeolites】



【3. Chemical synthesis】



1. We have developed new biomedical ceramic materials including non-resorbable membranes for Guided Bone Regeneration (GBR) and bio-resorbable porous ceramics. We have shown evidences of their high tissue-regenerating abilities. We are further optimizing the performance of the materials for commercializing.
2. Zeolites, which have superior adsorption capabilities, have to be consolidated into boards or blocks to be served for interior building materials although it has been considered very difficult. We have developed an original consolidating method of zeolites.
3. By combining various chemical synthesis techniques, it has been made possible to synthesize nano-porous thin films, hollow pheres, and so on, for future functional materials.

Appealing point: The strength of my team is that we are knowledgeable in 1. Chemical synthesis methods, 2. Powder processing techniques, 3. Glass science, and 4. Biological evaluation of materials.

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