

# Development of Bioresorbable Glass Materials for Biomedical Applications

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<https://narushimalab-material-tohoku.jp/>



**Glass:** Amorphous inorganic solids without a crystal structure

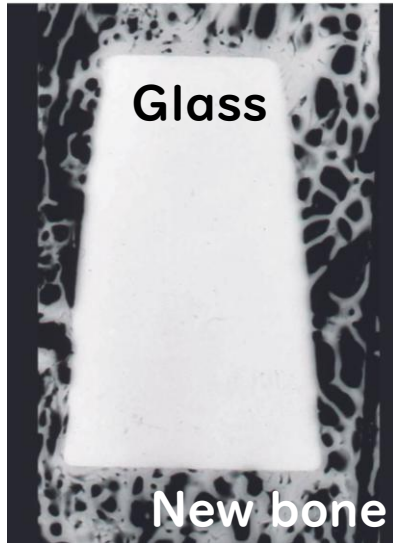
## Bioactive glass

Directly bonds to bone: Apply to bone defects  
Biodegradable: Sustained release of constituent elements and added elements enables functional expression

## Synthesis of glass



Window glass



Glass

New bone



Glass cup

<https://glass-poster.iyoq2022.jp>

In this theme, we will investigate the effect of elemental additions on the bioresorbability of bioactive glasses. Element-added SiO<sub>2</sub>-CaO-P<sub>2</sub>O<sub>5</sub>-based bioactive glasses are synthesized by the melt-quenching method, and their bioresorbability is evaluated using immersion testing in the simulated body fluid.

The start date will be decided in consultation with the students.