



Assoc. Prof.  
IZUMI Minoru



## Solid-Supported Combinatorial and Parallel Synthesis of Bioactive Compound Libraries.

The solid-phase strategy is a strong tool for high throughput synthesis and combinatorial chemistry. Synthetic intermediates are retained on the support and can be, therefore, quickly separated from the reaction mixture without extraction, concentration, and purification steps. Solid-phase synthesis is thus particularly advantageous for multi-step iterative synthesis. Various solid-phase automated synthesizers have been developed and are now commercially available. Our research focus on automated synthesis of bioactive compound and building-up of compound libraries by automatic synthesizer Nautilus 2400.



## Chemo-Enzymatic Synthesis of glycosides and glycoconjugate.

Galactofuranose is a component of polysaccharides and glycoconjugates. There are few reports about the involvement of galactofuranosyltransferases and galactofuranosidases in the synthesis and degradation of galactofuranose-containing glycans. The cell walls of filamentous fungi in the genus *Aspergillus* include galactofuranose-containing polysaccharides and glycoconjugates, such as O-glycans, N-glycans, and fungal-type galactomannan, which are important for cell wall integrity. Our research interests focus on many problems that lie at the integrity of cell wall, we are especially investigating the methodology to synthesize glycosides and glycoconjugates by chemo-enzymatic methods including use of some enzyme.

