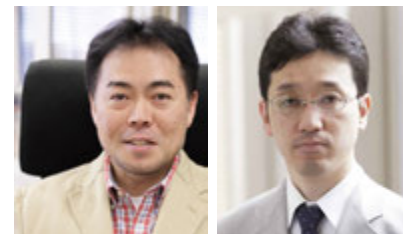


Department of Applied Biological Chemistry
**Laboratory of
 Natural Organic Chemistry**



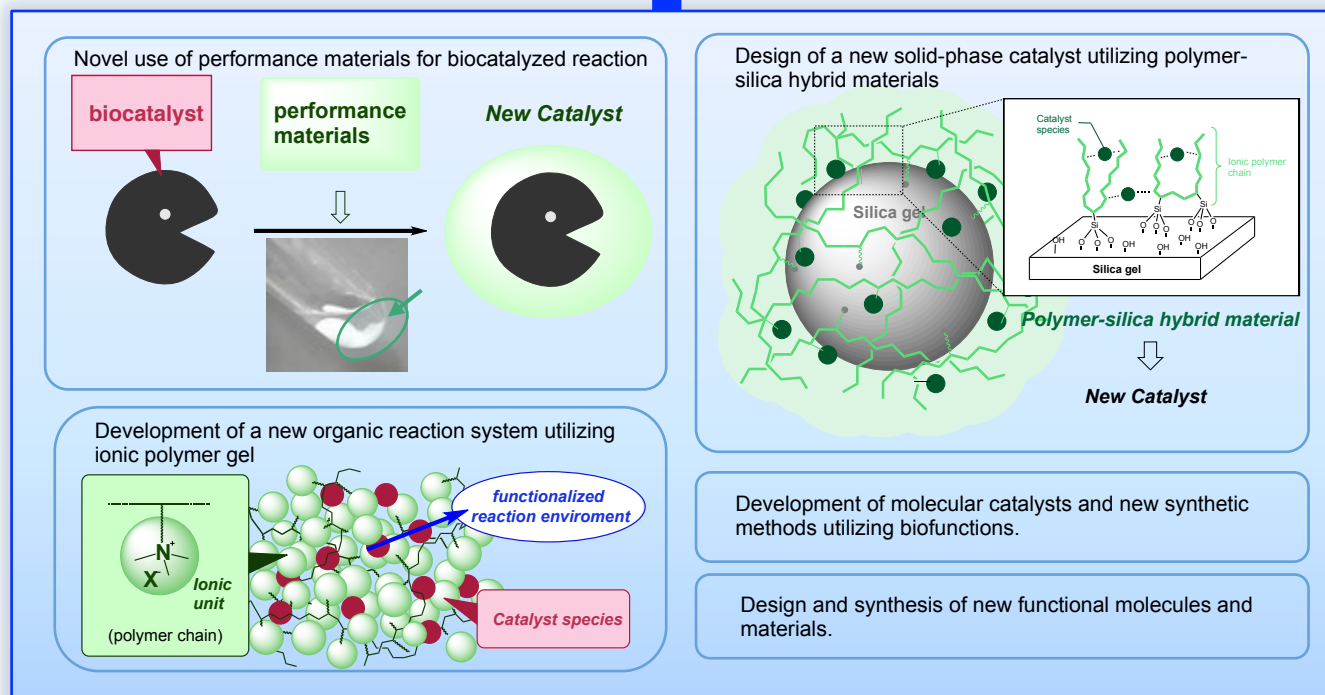
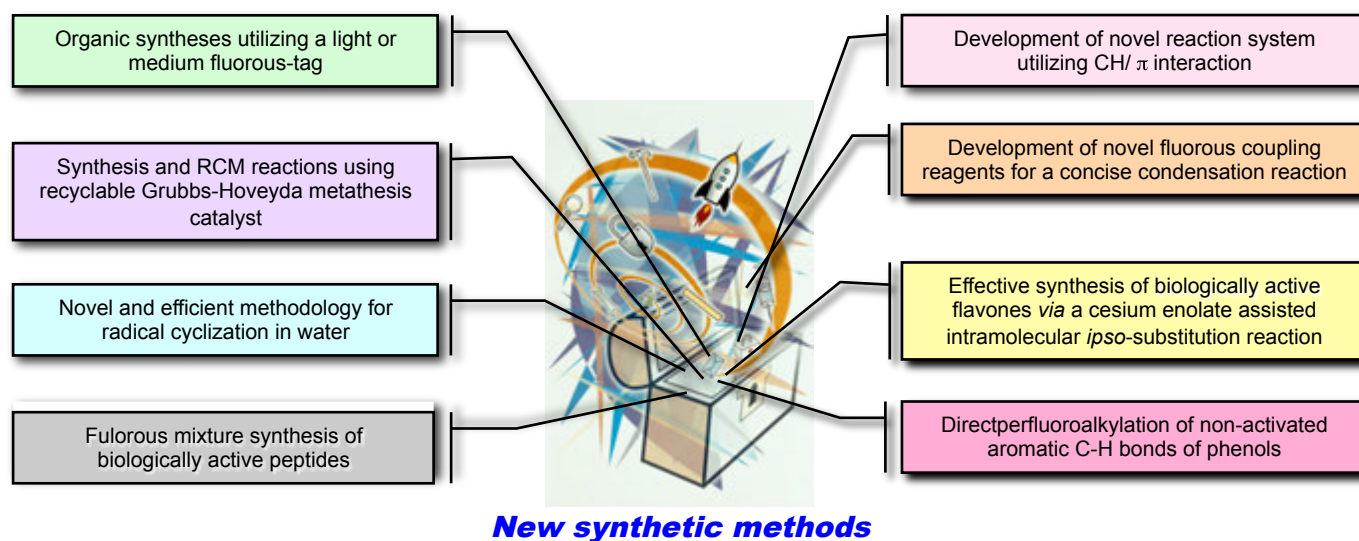
Professor Masato MATSUGI
 Associate Professor Hiromi HAMAMOTO

STAFF	Professor Masato MATSUGI	Associate Professor Hiromi HAMAMOTO
TEACHING	Organic Chemistry I & II Organic Natural Product Chemistry Advanced Synthetic Organic Chemistry (MC)	Bio-organic Chemistry I & II Advanced Bioorganic Chemistry (MC)

Research

Development of New Applicable Methods to Synthesize of Bioactive Compounds

The major research efforts of our group are directed toward development of new applicable methods to synthesize various bioactive compounds.



Recent publications:

- Matsugi, M. *et al.* (2013) Liquid-phase Split-type Combinatorial Synthesis of Tripeptide Derivatives Encoded by Fluorous Fmoc Reagents. *Synlett*, 2701-2704.
- Matsugi, M. *et al.* (2013) A Synthesis of All Stereoisomers of Tenucyclamide A Employing a Fluorous-Fmoc Strategy. *J. Org. Chem.* 78, 10264-10272.
- Matsugi, M. (2013) 2-Chloro-1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)pyridinium 1,1,1-trifluoromethanesulfonate. *Encyclopedia of Reagents for Organic Synthesis*, ISBN: 9780470842898; DOI: 10.1002/047084289X.
- Tamura, H. *et al.* (2013) The systematic structure-activity relationship to predict how flavones bind to human androgen receptor for their antagonistic activity. *Bioorg. Med. Chem.* 21, 2968-2974.
- Matsugi, M. *et al.* (2013) A non-enzymatic kinetic resolution of (\pm)-trans-2-arylcyclohexanols via esterification using polymer-supported DCC, DMAP, and 3 β -acetoxytyetanic acid. *Synth. Commun.* 43, 1425-1431.
- Matsugi, M. *et al.* (2013) Fluorous mixture synthesis of fluoros-fmoc reagents using a one-pot double tagging strategy. *Tetrahedron Lett.* 54, 2060-2062.
- Hamamoto, H. (2012) Development and application of new oxidation systems utilizing oxometalate catalysts. *Chem. Pharm. Bull.* 60, 799-817.
- Hamamoto, H. *et al.* (2012) Synthesis of pyrrolophenanthridone alkaloid kalbretorine from indolecarboxylic acids via hypervalent iodine(III) mediated halodecarboxylation and reduction. *Tetrahedron Lett.* 53, 1924-1927.
- Matsugi, M. *et al.* (2012) A fluoros Mukaiyama coupling reagent for a concise condensation reaction: Utility of medium-fluorous strategy. *Tetrahedron* 68, 3885-3892.
- Hamamoto, H. *et al.* (2011) Hypervalent Iodine(III)/LiX Combination in Fluoroalcohol Solvent for Aromatic Halogenation of Electron-Rich Arenecarboxylic Acids. *Synlett* 11, 1563-1566.
- Hamamoto, H. *et al.* (2011) Simple Synthesis of Pratosine and Hippadine by Intermolecular Palladium-Catalyzed Cyclization and Decarboxylation. *Heterocycles* 83, 1111-1119.