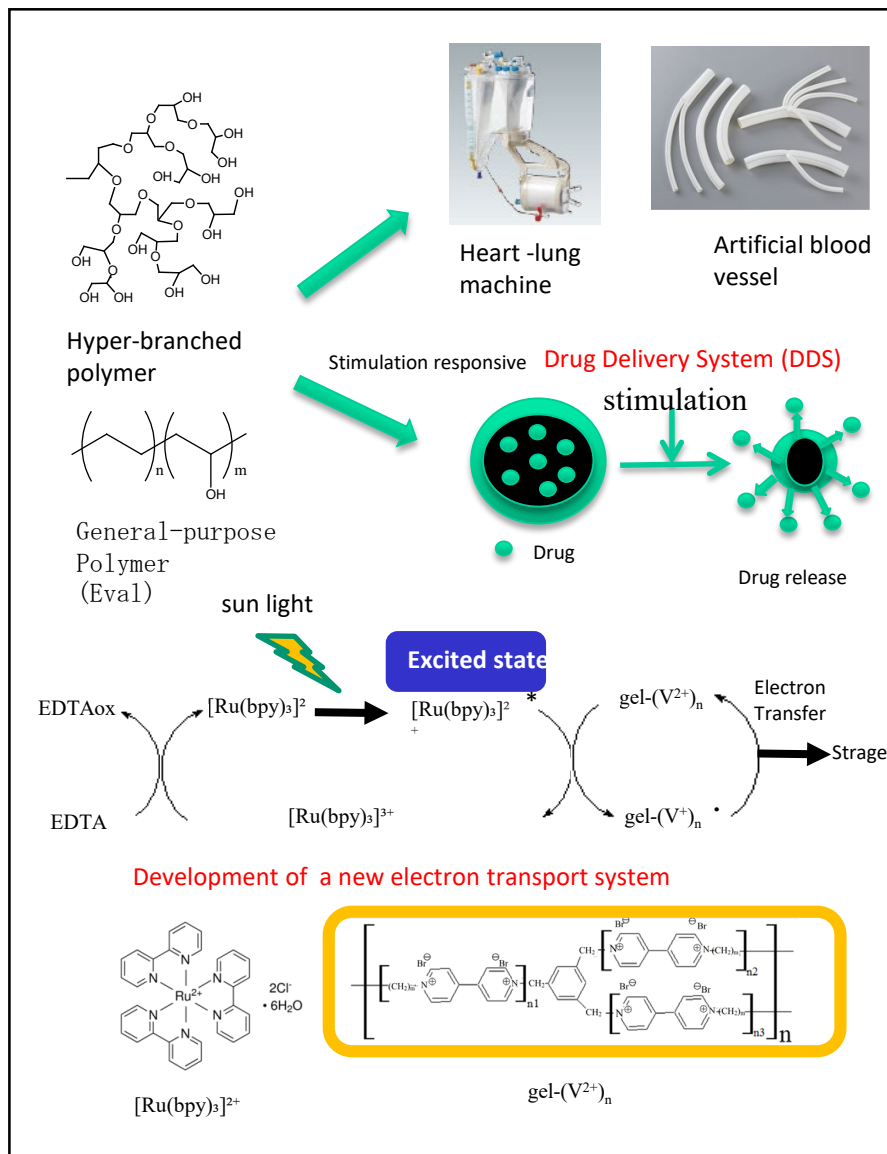


Developments of Organic Functional Materials

Associate Professor Rikiya Sato



Content:

Development of new biocompatible materials: In our lab. we have studied on the development of new biocompatible materials by the methods of precision synthesis (living radical polymerization, Click reaction, etc.) from hyper-branched polymer (polyglycidol, ethylene-vinylalcohol copolymer etc.).

Construction of stimulation responsible drug delivery system: In order to reduce the side effects of method of drug treatment , we have challenged the construction of new drug administration system (stimulation responsible drug delivery system). As a core material the hyper-branched polymer (polyglycidol) was selected , and poly(N-isopropylacrlamide) as a stimulation responsible part and polyethylene glycohol as a biocompatible unit were used. We synthesized the polymer having three parts and are evaluating of the polymers obtained.

Development of a new electron transport system: We created a new electron transport system similar to photosynthesis using viologen polymers which are useful an electron carriers, and are trying to apply the system to various electron reactions.

Appealing point : Sophisticated organic and polymer synthetic skill.
Creation of biomimetic system.

Yamagata University Graduate School of Science and Engineering
Research Interest : Polymer Chemistry
Organic Chemistry

E-mail : riki@yz.yamagata-u.ac.jp

Tel : +81-238-26-3087

Fax : +81-238-26-3177

HP : rikiya-lab.yz.yamagata-u.ac.jp/

