

# Prof. Kobayashi Laboratory, Cell Engineering Area

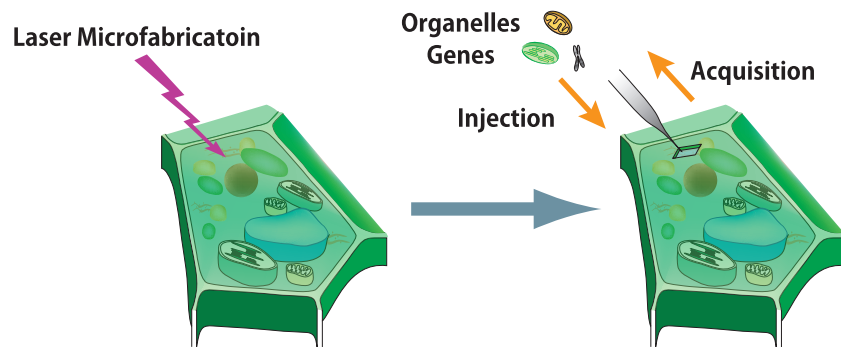
## Department of Biotechnology, Graduate School of Engineering

### Plant Biotechnology and Metabolic Engineering

Our group focuses on various potentials of plants and pursues efforts to utilize their functions for creation of a sustainable and affluent society with plant biotechnology.

#### Development of Novel Laser Microfabrication Technique for Plant Cell Engineering (PI: Prof. Kobayashi)

A novel laser microfabrication technique, which allows us to process plant cells just as we designed, are developing in this project. This technique will contribute toward development of a unique transformation procedure for plants. Those new technology will be useful for efficient agricultural production and phytoremediation. We are also trying to establish a new system for analysis of the contents in a target cell using the laser microfabrication technique.



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#### Elucidation of Natural Rubber Biosynthetic Pathway

(PI: Prof. Kobayashi & Dr. Nakazawa)

Biosynthetic pathway of natural rubber has not been elucidated in spite of its importance as industrial materials for production of tires, latex products and so on. We are making a challenge to solve the natural rubber biosynthetic pathway from viewpoints of both organic chemistry and molecular biology.

#### Study on Plant Photoresponses for Improvement of Phytoproduction

(PI: Dr. Okazawa)

We are investigating plant photoresponses using non-photosynthetic parasitic plants as genetic bioresources. New methods to improve phytoproduction are being developed based on the knowledge about plant photoresponses.

