

## Accelerator Applications Research Division Beam Mutagenesis Group

### 1. Abstract

This group promotes biological applications of ion beams from RI Beam Factory (RIBF). Ion Beam Breeding Team studies various biological effects of fast heavy ions and develops new technology to breed plants and microbes by heavy-ion irradiations. Plant Genome Evolution Research Team studies the effect of chromosomal rearrangements on plant genomes and phenotypes.

### 2. Major Research Subjects

- (1) Biological effects of fast heavy ions
- (2) Molecular nature of DNA alterations induced by heavy-ion irradiation
- (3) Research and development of heavy-ion breeding
- (4) Study on the effect of chromosomal rearrangements on plant genomes and phenotypes

### 3. Summary of Research Activity

Summary of research activities of the two teams are given in the sections of each team.

### Members

#### Director

Tomoko ABE

#### Team Leaders

Tomoko ABE

Hiroyuki ICHIDA