

New, more efficient method for using CRISPR to genetically edit flowering plants

A pair of plant biologists at the Institute of Transformative Bio-Molecules (ITbM) of Nagoya University, has reported in the journal *Plant and Cell Physiology*, on the development of a new vector (a carrier to transfer genetic information) to knockout the target genes in the model plant, *Arabidopsis thaliana*, in a highly efficient and inheritable manner.

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So far, the CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats)/Cas9 (CRISPR-associated protein 9) system is one of the most popular methods for genetic manipulation arising from its simplicity, versatility and efficiency.

[T]he mutation inducing efficiency of CRISPR/Cas9 towards the model plant, *Arabidopsis thaliana*, has remained somewhat low so far. ... Therefore, a significant amount of time, effort and plant species has been required to obtain the desired plant species with the targeted gene knocked out.

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“By being able to efficiently knockout the targeted gene in *Arabidopsis thaliana*, we consider this to be a promising method to elucidate the genetic functions of plants,” says Tetsuya Higashiyama, a professor and leader of this research. “We hope that we can apply this methodology for genome editing of crops, such as *Brassica napus*, to accelerate their growth and generate a variety of plant lines.”

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post: [Highly efficient genome engineering in flowering plants](#)