

Support for Startup Ecosystem Formation

Adoption year: FY 2022 Principal Investigator: Tokyo Institute of Technology / Professor / Yuriko Osakabe (As of Aug.2022)

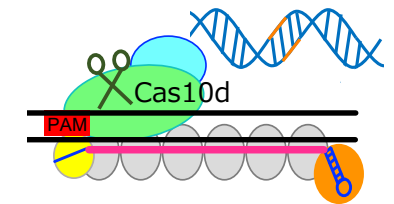
Subject of Research

Development a novel genome editing technology using “TiD”

Overview

Genome editing is a technology for precisely modifying DNA sequences in various organisms and now becoming used as a powerful tool in fields such as medicine, agriculture, and resource development. Off-target risk, a risk of modifying sequences other than the target, is an issue when using genome editing for medical treatment and drug discovery. We have developed the “TiD” system, a novel genome editing technology that significantly reduces off-target risk. We provide this unique TiD-based genome editing to create more precise genome modification and diverse cells and organisms. By providing this service, we contribute to the creation of new industries.

Novel genome editing using Type I-D CRISPR-Cas



Business Models(when applying)

We provide efficient and easy-to-use genome editing based on the genome editing TiD system, and package various peripheral technologies and safety evaluation methods based on TiD, along with overall genome editing consulting services, including design and preliminary evaluation of genome editing technologies, provision of cell and organism creation technologies, and quality evaluation of created products. In addition to consulting services, we provide simple and accurate genome editing technologies that take advantage of TiD's low off-target risk, which is one of its unique characteristics.

Activity Planning(when applying)

Establishment of a startup to provide a user-friendly genome editing technology platform based on a new genome editing tool, TiD.

- Improvement of the operation efficiency of TiD genome editing
- Development of various gene modification TiD toolkits
- Development of prototype genome-edited cell lines and safety evaluation technologies and peripheral technologies for genome editing
- Development of genome editing protocol packages to be provided to users
- Development of business model, formulation and validation
- Selection of initial users, implementation of joint research, and establishment of a global network

