

## **C4U Announces the License Agreement with Euglena for CRISPR-Cas3 Technology**

C4U Corporation (“C4U”) and Euglena Co., Ltd. (“Euglena Co.”) are pleased to announce that we have entered into a license agreement (the “Agreement”) regarding patents related to CRISPR-Cas3 technology, for which C4U holds exclusive licenses including sublicensing rights. Under this Agreement, C4U grants Euglena Co. a non-exclusive license for the test production to be conducted by Euglena Co.

Since May 2023, we have been conducting collaborative research on the application of CRISPR-Cas3 genome editing technology in the microalga *Euglena*. As announced on April 17, 2025, our collaboration successfully achieved the breeding of strains of *Euglena* which have certain possibility for industrial applications.

Based on these results, we have concluded this Agreement to enable Euglena Co. to conduct test production for the application of CRISPR-Cas3 gene-edited strains of *Euglena* in food and other products.

Akimitsu Hirai, President and CEO of C4U, stated: “We are very pleased to proceed to the test production phase based on the results of our collaborative research with Euglena Co. over the past two years. We look forward to advancing toward the commercial production and sale of microalgae *Euglena* products made with CRISPR-Cas3 genome editing technology.”

### **About C4U Corporation**

C4U is a privately held biotech company based in Osaka, Japan, and is focused on the development of safe and efficient gene therapies utilizing its proprietary next generation CRISPR-Cas3 gene editing platform. In comparison to the CRISPR-Cas9 platform, CRISPR-Cas3 presents the distinct benefits of: 1) no off-target by the higher selectivity of deletion site (improved safety); 2) efficient knockouts by the larger deletion of gene sequences; and 3) an entirely independent patent portfolio. C4U has been granted a worldwide exclusive license to CRISPR-Cas3 by the University of Osaka for use in eukaryotic cells thus simplifying sublicensing transactions which is in sharp contrast to the complex and heavily litigated CRISPR-Cas9 patent landscape.

URL: <https://www.crispr4u.jp/en/>

### **About Euglena Co., Ltd.**

In 2005, Euglena was the first company in the world to successfully establish outdoor mass cultivation technology for edible microalgae *Euglena*. The company develops and sells food, cosmetics, and other products using microalgae such as *Euglena* and Chlorella, and is also engaged in the development and production of biofuels. Since 2014, Euglena has been running the “Euglena GENKI Program,” delivering nutrient-rich biscuits containing *Euglena* to children in Bangladesh. With “Sustainability First” as its corporate philosophy, Euglena continues to expand its business.

<https://www.euglena.jp/en/>

## **Glossary of Terms**

**Genome Editing Technology:** A technique that introduces artificially designed DNA cleavage enzymes into cells to selectively cleave and modify localized parts of the genome.

**CRISPR-Cas3:** Similar to CRISPR-Cas9, it cleaves double-stranded DNA. It is considered a safer genome editing tool because its crRNA (guide) recognition sequence is longer (27-base guide sequence), resulting in high specificity for recognizing genomic sequences and a low risk of inducing off-target mutations (mutations at unintended sites). It is also proficient at causing large deletions, allowing for loss of gene function or the removal of large regions containing disease-causing genetic mutations, in addition to gene modification.

**CRISPR-Cas9:** A type of widely used genome editing technology. Cas9 binds with a guide RNA, and selectively cleaves DNA complementary to a part of the guide RNA (20-base guide sequence). By changing the guide sequence, it can selectively cleave DNA with various base sequences. It was developed by multiple researchers in the US and Europe and has a complex background of numerous intertwined patents, with patent litigation currently ongoing in the US and other countries.

## **Contact Information**

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