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Intelligence

# Could a new CRISPR gene editing technology lead to innovation in aquaculture?

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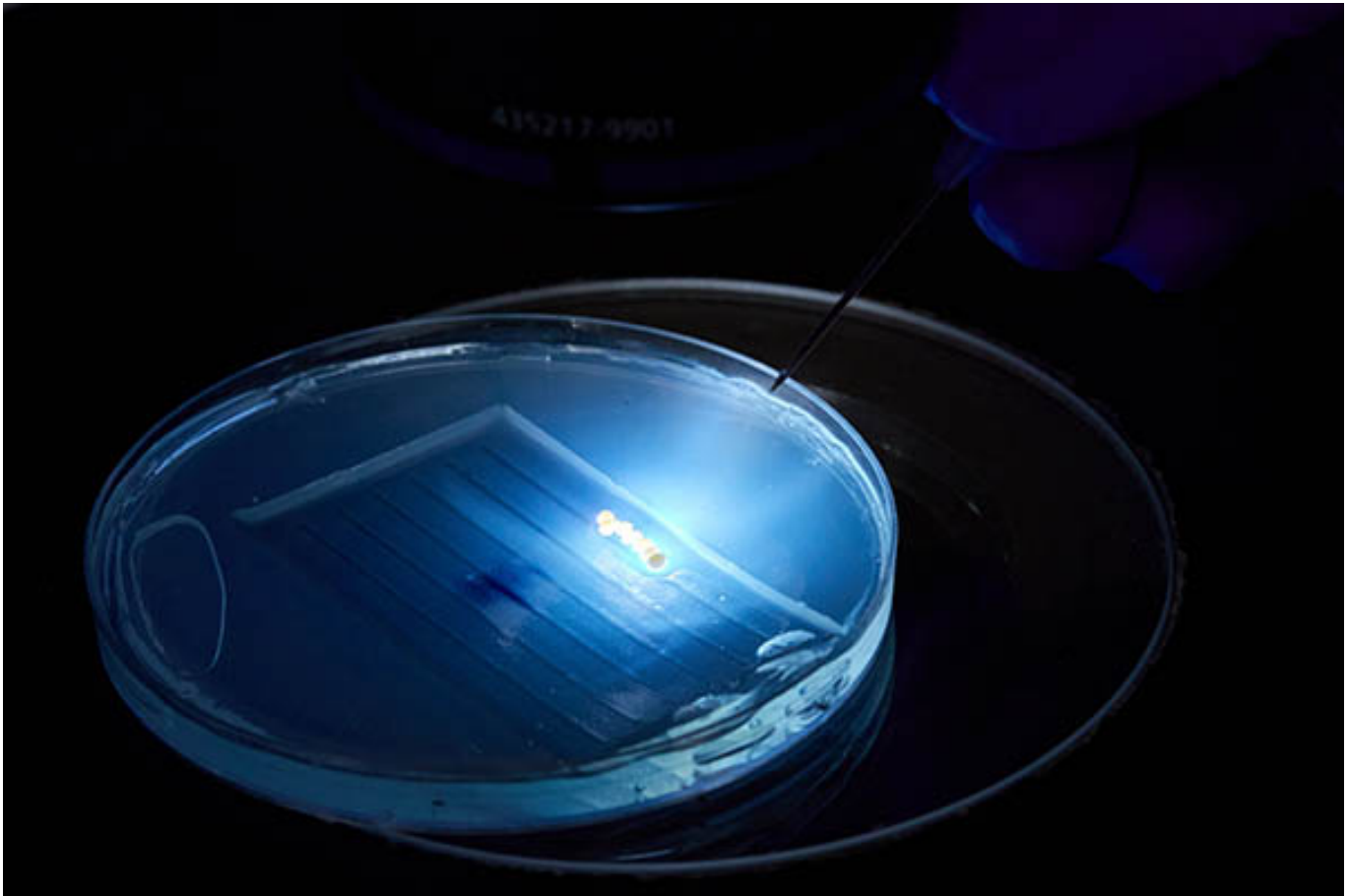
By Responsible Seafood Advocate

## Innovative CRISPR gene editing technology tailored for aquaculture improves safety and unimpeded legal accessibility

The Center for Aquaculture Technologies (CAT), a provider of genetics solutions in aquaculture, is partnering with C4U Corporation, a Japan-based biotech company, to apply CRISPR-Cas3 technology to promote genome editing in major commercial fish species and drive technological advancements within the industry.

CRISPR-Cas3 technology was developed from the research work of Professor Tomoji Mashimo, currently at the Institute of Medical Science, University of Tokyo, who is also a co-founder of C4U, along with other contributions.

The CRISPR-Cas3 platform provides unique advantages, such as increased safety through a reduction in unintended mutations and the capability for broad gene alterations near the target site. It stands out as an attractive option for genome editing, unencumbered by the intricate patents associated with



The CRISPR-Cas3 platform provides unique advantages, such as increased safety through a reduction in unintended mutations and the capability for broad gene alterations near the target site. Photo: Eggs Microinjection at the CAT Finfish Genetics Innovation Center.

CRISPR-Cas9, offering a practical substitute.

“Our commitment through C4U – CRISPR for you – is to democratize this advanced technology, ensuring it is accessible for improving health outcomes and sustainable food production,” said Akimitsu Hirai, president and CEO of C4U. “The name C4U encapsulates our vision of bringing the benefits of CRISPR technology directly to the industries that need it most, from medical therapies to enhancing aquaculture’s growth, aligning with CAT’s mission to meet the global food demand responsibly.”

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According to CAT, genome editing presents “the most feasible and sustainable pathway” to meet the world’s increasing food requirements and contribute to the economic vitality of the aquaculture sector.

“Our collaboration with C4U is a key part of our mission to introduce advanced genome editing technologies to aquaculture,” said John Buchanan, CEO of CAT. “We are invested in pursuing relationships that propel the industry forward, addressing the global food demand sustainably and responsibly.”

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