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## Genome Editing Toward Rice Improvement

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### Abstract

Rice (*Oryza sativa* L.) serves as the major food source feeding half of the world's population. In the past century, the pedigree-based conventional, radiation-based mutational and DNA marker-based molecular breeding approaches have contributed enormously toward enhancement of rice productivity. However, it is becoming hard and hard to increase rice yield further due to several factors including a possible ceiling of rice yield potential, the frequent pest and pathogen attack, climate change, and other environmental issues such as decreasing water resources. Since the human population is still growing which was projected to reach 9.7 billion by 2050, it is urgent to develop new breeding