Special Issue

Functional Genomics and Systems Biology in Rice Yield and Quality Research

Message from the Guest Editors

Rice (*Oryza sativa* L.) is the most popular staple grain, Improved yield and quality are two key traits that humans have long pursued. Since the completion of rice reference genome sequences, tremendous progress has been achieved in understanding the molecular mechanisms of various rice traits and dissecting the underlying regulatory networks. Understanding rice's functional genomics and systems biology provides insights into the genetic mechanisms governing crucial traits such as yield and quality. However, several factors have been threatening the grain yield and quality of rice: such as the world population is increasing; global climatic change; water resources are in shortage; and the demand for high-quality rice is growing. Hence, the main goal of this Special Issue is to gather research methods, innovations, and knowledge in rice yield and quality research regarding functional genomics and systems biology. The included research can encompass mapping and cloning novel genes related to rice grain yield and quality, functional analysis of these genes, and investigation of their applications in biological breeding.

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