Special Issue

Application of Genetic Engineering and Synthetic Biology in Crop Improvement

Message from the Guest Editor

Crops are essential sources of food, feed, bioenergy, biomaterials, medicine, and ornamentals. The yield and quality of existing crops cannot meet the future demands of our society. For example, a 70 percent increase in global food production by 2050 will be needed to feed the future world population. This challenge is exacerbated by the reduction in arable land and clean water resources. Therefore, there is an urgent need to find novel solutions to these challenges without placing further burden on the environment. Genetic engineering and the interdisciplinary field of synthetic biology have great potential for plant improvement to meet the future demands of crop production. Many efforts have been directed towards the improvement in crop yield, stress adaptability, and crop quality using synthetic biology and cutting-edge genetic-engineering tools. This Special Issue welcomes research and review articles to highlight the advances and perspectives in the development and application of innovative genetic engineering and synthetic biology technologies in various plant crops.

Guest Editor

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Message from the Editor-in-Chief

Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

Editor-in-Chief

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