

Special Issue

Cultivation Physiology, Molecular Biology and Molecular Breeding of Solanaceae

Message from the Guest Editor

The Solanaceae family includes crops such as tomato, pepper, eggplant, potato, wolfberry, alkekengi, etc. Several crops in the Solanaceae family are very important foods or horticultural crops, widely consumed worldwide, as they are important sources of dietary compounds and several nutrients. Great progress has been achieved in genomics, gene editing technology and haploidy breeding (potato). However, there are still a lot of unknown aspects that require investigating. Therefore, we aim to clarify the cultivation physiology, molecular biology and molecular breeding of Solanaceae crops. Cultivation physiology includes photosynthesis, respiration, chlorophyll fluorescence, ROS, enzyme activity, etc., of Solanaceae plants under open-field or protected cultivation conditions. Molecular biology includes the regulation of key genes, noncoding RNAs (miRNAs, circRNAs and lncRNAs), DNA methylation, protein phosphorylation, etc., for growth and development, yield, quality, or biotic and abiotic stresses. Molecular breeding includes molecular marker-assisted breeding and genetic modification breeding. All of the abovementioned topics are within the scope of this Special Issue.

Guest Editor

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