



Plant Floral Induction Mechanisms and Molecular Genetics with Developmental Plasticity

Guest Editors:

Dr. Horim Lee

Department of Biotechnology,
Duksung Women's University,
Seoul 01369, Korea

Dr. Jeong Hwan Lee

Division of Life Sciences, Jeonbuk
National University, Jeonju
54896, Korea

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Message from the Guest Editors

Flowering time (also known as floral induction) is one of the most important developmental changes in plants. After floral induction in the shoot apical meristem (SAM), the vegetative phase containing leaf primordia as lateral organs is transited into the reproductive phase containing floral meristems to produce the next generation seeds. Numerous genetic and physiological studies using model plants such as *Arabidopsis* and rice have revealed that optimized flowering time is determined through complicated genetic regulatory networks in which diverse internal and external signaling pathways such as photoperiod, vernalization, ambient temperature, phytohormones, and developmental age are integrated. In addition, as plants are sessile organisms and constantly encounter environmental stresses, flowering time as one of ecologically important traits must be controlled precisely for plastic development and adaptation. Therefore, investigating the underlying molecular genetic mechanisms of floral induction and the regulation of flowering time against unfavorable conditions has a significant impact on this field.





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Prof. Dr. Dilantha Fernando
Department of Plant Science,
University of Manitoba, Winnipeg,
MB R3T 2N2, Canada

Message from the Editor-in-Chief

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Plants Editorial Office
MDPI, Grosspeteranlage 5
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