Special Issue

Melatonin in Plants

Message from the Guest Editor

Melatonin has been investigated with an increasing amount of information about its presence in various plant species and its physiological functions. A large number of studies regarding plant melatonin (known as phytomelatonin) have been published over the past several years, indicating that phytomelatonin is a hot research topic. Melatonin regulates many biological processes, including seed germination, root growth, leaf senescence, and plant responses to various abiotic and biotic stresses. Exploiting the functions of melatonin in plants could facilitate its potential application in agriculture to improve yield and plant-environmental interactions. Much remains to be discovered, especially regarding the crosstalk between phytomelatonin and other plant hormones in terms of diverse biological processes or responses to the environment. In addition, more refined mechanism research on molecular, cellular, genetic, or large-scale omics levels is needed. This Special Issue of Plants will include reviews and refined function studies of phytomelatonin during development and in response to various environments. as well as potential regulatory studies on melatonin biosynthesis in plants.

Guest Editor

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Deadline for manuscript submissions

closed (31 October 2021)



Plants

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed



mdpi.com/si/86423

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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.

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