



Light-Dependent Control of Metabolism in Plants

Guest Editors:

Dr. Gábor Kocsy

Agricultural Institute, ELKH
Centre for Agricultural Research,
2462 Martonvásár, Hungary

Prof. Dr. Maria Müller

Institute of Biology, Plant
Sciences, University of Graz,
Schubertstraße 51, 8010 Graz,
Australia

Deadline for manuscript
submissions:

closed (15 February 2023)

Message from the Guest Editors

The photoreceptors of plants sense the alterations in the intensity and ratio of UV-B, blue, red and far-red spectral components, and the metabolism is modified through light-responsive signalling pathways. In this signal transduction, reactive oxygen species and antioxidants are especially important because of the redox sensitivity of many transcription factors and enzymes, as well as the need for reductants or oxidants in several reaction steps. The light-dependent control of basic metabolic pathways such as carbon and nitrogen metabolism will also affect the growth and development of plants. A better understanding of this regulation is also important for agriculture, since the determination of the optimal light conditions for indoor farming will result in increased yield. This Special Issue will present and discuss the physiological, biochemical, and molecular biological effects of changes in light intensity and spectrum on the metabolism in plants, showing the regulatory mechanisms and causal relationships between changes in light conditions and various metabolic pathways.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of
Odontostomatologic and
Specialized Clinical Sciences,
Sez-Biochimica, Faculty of
Medicine, Università Politecnica
delle Marche, Via Ranieri 65,
60100 Ancona, Italy

Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (*Biochemistry & Molecular Biology*) / CiteScore - Q1 (*Inorganic Chemistry*)

Contact Us

*International Journal of Molecular
Sciences* Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/ijms
ijms@mdpi.com
X@IJMS_MDPI