Special Issue

Molecular Responses to Temperature in Plants

Message from the Guest Editors

Temperature is one of the environmental signals that strongly affect plant developmental responses. For example, plants are able to adapt their organ shape in relation to the temperature they experience, a phenomenon called “thermo-morphogenesis”. As such, elevated temperature promotes hypocotyl elongation. Plants also show differences in leaf morphology depending on the environmental temperature they experience at growth. Another important plant trait controlled by temperature is flowering time, the switch from the vegetative to the reproductive phase. Moreover, rapid increase (heat stress) or decrease in temperature (cold stress) have strong impact on plant developmental responses.

This special issue of Plants aims to collect new insights into how temperature modulate plant growth in model species as well as in crops. Original research papers, perspectives, hypotheses, opinions, reviews, modeling approaches and methods focusing on molecular mechanisms of temperature sensing and (co-)transcriptional responses to temperature fluctuations in plants are welcome.

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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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