Special Issue

New Insight into Research in In Vitro Plants Propagation

Message from the Guest Editors

Callus culture provides information about the plant morphogenic potency and serves as a good source material for protoplast isolation, as well as the inoculum for the initiation of suspension cultures, and can be maintained indefinitely in in vitro conditions. Presently, callus is widely and succesful used in biotechnology; in the production of different kinds of primary and secondary metabolities; and to scale up bioactive compounds production for pharmaceutical, cosmetic, and food applications. The goals of callus culture are also embryogenesis and organogenesis production. Based on this ability, callus culture facilitates the amplification of limiting plant material and offers tools for genetic cell transformation. What is more, such genetically modified callus cultures can be a source of novel bioactive secondary metabolites and can lead to the generation of plants with improved resistance against salt, draft, diseases, and pests. Callus cultures also find applications in stress response studies at a cellular level. Despite the extensive use of callus, knowledge about its molecular and physiological regulation along with developmental aspects is still unsufficient.

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Deadline for manuscript submissions

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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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