

Special Issue

Innovation for In Vitro Plant Propagation and Biotechnological Approaches

Message from the Guest Editor

Innovation in plant biotechnology involves developing new methods or modifying products and processes with practical applications. The field has advanced rapidly in recent years. A key application is plant tissue culture (PTC), which can be classified into five areas: 1) plant health, producing pathogen-free plants via meristem culture, thermotherapy, and cryotherapy; 2) in vitro germplasm conservation using minimal growth media and cryopreservation; 3) breeding through genetic transformation, somatic hybridization, mutagenesis, and in vitro selection; 4) production of industrially valuable secondary metabolites; and 5) in vitro plant propagation. Recent trends include nanomaterials, hormesis, bioreactors, and genome editing. This Special Issue seeks to advance understanding of in vitro culture and its applications, highlighting innovative plant propagation and biotechnological strategies to address global challenges in food security, biodiversity conservation, and sustainable agriculture. We look forward to your contributions.

Guest Editor

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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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