# Special Issue

# In Vitro Techniques on Plant Propagation and Genetic Improvement

# Message from the Guest Editors

In vitro propagation is widely applied in various plants. It is a suitable way to ensure the genetic conservation of any endangered plant species or any other plant genetic resources. In vitro propagation in plants is highly species-specific and has been influenced by various factors such as carbon sources, plant growth regulators, light quality, and light intensity. Techniques such as callus culture, protoplast culture, organogenesis, and regeneration of protocorms like body (PLB), anther culture, ovary culture, and somatic embryogenesis are commonly used for in vitro plant propagation. In vitro propagation has also been extensively used for plant improvements through the application of embryo rescue, protoplast fusion, in vitro fertilization, and ploidy manipulation. Additionally, it has been used for genetic transformation and bioactive compounds or secondary metabolites production. Therefore, we welcome manuscripts on in vitro plant propagation, crop improvement, bioactive compounds, genetic conservation, genetic and genomic studies, epigenetic and epigenomic studies, transcriptomics, etc.

# **Guest Editors**

Dr. Hasan Mehraj

Graduate School of Agricultural Science, Kobe University, Rokkodai, Nada-ku, Kobe 657-8501, Japan

Dr. Monika Tuleja

Department of Plant Cytology and Embryology, Institute of Botany, Jagiellonian University, Gronostajowa 9, 30-387 Kraków, Poland

# Deadline for manuscript submissions

closed (20 December 2024)



# **Plants**

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed



mdpi.com/si/162259

Plants
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
plants@mdpi.com

mdpi.com/journal/plants





# **Plants**

an Open Access Journal by MDPI

Impact Factor 4.1 CiteScore 7.6 Indexed in PubMed



# **About the Journal**

# 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

Prof. Dr. Dilantha Fernando

Department of Plant Science, University of Manitoba, Winnipeg, MB R3T 2N2, Canada

### **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, PubAg, AGRIS, CAPlus / SciFinder, and other databases.

# **Journal Rank:**

JCR - Q1 (Plant Sciences) / CiteScore - Q1 (Ecology, Evolution, Behavior and Systematics)

