

## Special Issue

# Applications of Plant Tissue Culture: New Insight into Plant Improvement Research Using Plant Tissue Culture and Plant Modification Techniques

### Message from the Guest Editors

The classical plant breeding procedure is time-consuming, relying on limited natural genetic resources, and labour-intensive. Plant biotechnology has emerged as a reliable set of tools that empowers plant breeders to use genes of beneficial traits from diverse sources and insert them into plant genomes for genetic modifications. In addition, plant tissue culture (PTC) is a core biotechnology for maintaining or growing plant cells, tissues or organs under aseptic conditions. There have been remarkable advances in PTC research on multiple fronts including the regulation of plant developmental processes in vitro, discoveries of biologically active compounds, gene transfer and production of secondary metabolites of medicinal significance. Most recently, the integration of PTC with novel techniques such as genome editing has opened a new window to improve the desirable traits in plants. Therefore, this Special Issue aims to attract contributions for new advances in PTC focusing on plant growth regulators, gene transformation, genome editing, molecular farming and other applications of plant culture research in vitro.

### Guest Editors

Dr. David W. M. Leung

School of Biological Sciences, University of Canterbury, Private Bag 4800, Christchurch 8140, New Zealand

Dr. Rambod Abiri

Department of Plant Agriculture, University of Guelph, Guelph, ON N1G 2W1, Canada

### Deadline for manuscript submissions

closed (10 September 2023)



## Plants

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Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[plants@mdpi.com](mailto:plants@mdpi.com)

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### Editor-in-Chief

Prof. Dr. Dilantha Fernando

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

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