

Special Issue

Plant Tissue Culture for Crop Improvement

Message from the Guest Editor

Plant tissue culture and genome editing are expanding traditional plant breeding tools for crop improvement by introducing new traits more quickly and precisely. Our main objective is to advance the knowledge on plant tissue culture and genome editing tools which can be deployed efficiently to multiple crop species. This Special Issue will focus on the recent advancement in the techniques of gene editing using protoplast, cell, tissue and organ culture, and the regeneration of whole plants for improving different traits in cereals, oilseeds, pulse crops and greenhouse vegetables and fruits. Authors are invited to submit contributions in all areas related to the optimization of the promoters to drive and express Cas9 and the utilization of different fluorescent reporters and selection markers; delivery methods including electroporation, biolistic and *Agrobacterium*-mediated transformation and plant regeneration for achieving high-efficiency genome editing. These may include the optimization of mesophyll protoplasts system for gRNA validation and the delivery of gene editing components into haploid immature pollen.

Guest Editor

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closed (20 August 2024)



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About the Journal

Message from the Editor-in-Chief

Methods and Protocols (ISSN 2409-9279) is an open access journal devoted to the publication of new procedural approaches and cutting-edge methodological developments. The ultimate objective of this new forum of scientific communication is to provide researchers with an indispensable tool, enabling better use of the latest scientific technologies. With a broad and totally interdisciplinary focus, *Methods and Protocols* was established with the objective of facilitating cross-fertilization and cross-talk in the scientific arena. Methods and protocols in Life Sciences, Chemistry, Biomedical Sciences, Engineering, and in their intersections such as Biotechnology and Nanotechnology will constitute the core of the journal. However, we anticipate that other fundamental disciplines such as Physics or Geology will be rapidly incorporated.

Editor-in-Chief

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