

Special Issue

Metabolomics in Plant Environmental Physiology

Message from the Guest Editors

Plants acclimate to environmental changes, reprogramming their development, physiology, and metabolism to improve their fitness and allow their survival, especially under stressful conditions. A complete understanding of plant interaction with the environment is obtained integrating morphophysiological and molecular studies. In particular, the use of multiple approaches (the so-called systems biology) allows the investigation of the regulatory networks activated by plants in response to external factors. Over the past decade, plant metabolomics has become a powerful tool, thanks to the recent advances in mass spectrometry, NMR technology, and bioinformatics. The principal advantage of the metabolomic approach is that metabolites are measured in a nontargeted manner, offering the possibility to study plant responses to environmental stresses in a more holistic way. The metabolite pool includes a wide range of compounds with diverse properties inside the plant, from carbohydrates, organic and amino acids to secondary metabolites.

Guest Editors

Dr. Cecilia Brunetti

Institute for Sustainable Plant Protection (IPSP), I-50019 Sesto Fiorentino (FI), Italy

Dr. Antonella Gori

Department of Agriculture, Food, Environment and Forestry (DAGRI), University of Florence, 50019 Sesto Fiorentino, Italy

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

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About the Journal

Message from the Editor-in-Chief

The metabolome is the result of the combined effects of genetic and environmental influences on metabolic processes. Metabolomic studies can provide a global view of metabolism and thereby improve our understanding of the underlying biology. Advances in metabolomic technologies have shown utility for elucidating mechanisms which underlie fundamental biological processes including disease pathology. *Metabolites* is proud to be part of the development of metabolomics and we look forward to working with many of you to publish high quality metabolomic studies.

Editor-in-Chief

Dr. Amedeo Lonardo

Internal Medicine, Ospedale Civile di Baggiovara, Azienda Ospedaliero-Universitaria, 41126 Modena, Italy

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