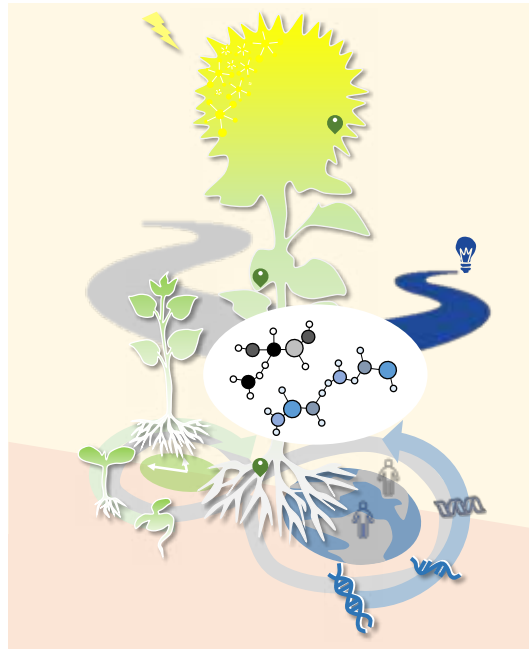


Plant Metabolomics

Special Issue

Edited by
Masami Yokota Hirai,
Yonghua Li-Beisson, and
Yuki Nakamura



Above A plant's metabolome is spatiotemporally dynamic throughout its life cycle and systemically changes in response to environmental fluctuations (courtesy of Yueh Cho).

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Plants are a treasure trove of metabolic compounds. The chemical diversity of plant cells has developed and been maintained through evolution and metabolic regulation and plays a crucial role in plant physiology, development and fitness. Metabolomics research has opened a new systems-level approach to understanding the biological importance of metabolic diversity. It has also provided an approach for metabolic engineering to produce a compound of interest to meet societal and economical demands, an important effort to achieve the goals of sustainable development.

This special issue, which will be published in association with the 33rd International Conference on Arabidopsis Research (ICAR2023), will focus on the current trends in plant metabolomics

research, including the development of analytical technologies, plant functional study, and applications to synthetic biology.

Invited Reviews

Alisdair Fernie Multi-omics guided breeding

Andreas Weber Photosynthesis, carbon metabolism and synthetic biology

Takuya Yoshida Metabolomic adaptation in response to environmental fluctuations

Kent Chapman Imaging metabolism *in situ*

Tsubasa Shoji and Kazuki Saito on secondary metabolism (title TBC)

Hitoshi Sakakibara Ten open questions in cytokinin metabolism

Mark Stitt on photosynthetic

metabolism/system regulation (title TBC)

Thusi Rupasinghe, Bronwyn Barkla, Munish Puri, Qi Guo, Adarsha Gupta Effects of global warming on plant lipidomes, how we predict sustainability of crops and farms

Toshiaki Umezawa OMTs involved in lignin biosynthesis

Invitation to submit

We welcome contributions to this special issue. If you would like to submit a paper, either research or review, please [email](#) a title and brief outline for the consideration of the guest editors. All papers are subject to the usual standards of peer review and must fit the scope of the journal. The deadline for submissions is 30 June, 2023.



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