Special Issue

Production, Sorting, and Accumulation of Proteins and Metabolites within Plant Cells

Message from the Guest Editors

The use of plants as biofactories for the production of natural compounds has a long tradition and is today attracting new attention for a higher awareness of the value of plant biomasses in a circular economy. Moreover, in recent years, plant-based bioproduction platforms have emerged as promising strategies to produce recombinant proteins, offering very low production costs and unbeatable scalability.

Membrane trafficking carries out transport of all the molecules of possible interest, from their synthesis to accumulation, and requires the coordination of multiple signaling events and molecular motors to control cargo sorting. A better understanding of the secretory pathway in plants can drive improvements in food production and plant-based products with medicinal, nutritional, and commercial value. The secretory pathway of plants is perfect for both producing proteins that undergo complex post-translational modifications to become pharmacologically functional and directing the foreign protein to a particular subcellular compartment for further purification or storage.

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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.

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