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Biosynthesis Pathways and Regulation Mechanism of Plants Secondary Metabolites

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Message from the Guest Editor

Plants biosynthesize a wide variety of secondary metabolites (SMs). Many of them are involved in relationships between the plant and other organisms and in plant defence against abiotic stress. Plant SMs fill an important role for humans as well. Organoleptic characteristics and health properties of plant-based foods are strongly affected by their SM profile. Moreover, plant SMs are marketed as flavours, fragrances, dyes, fine chemicals, pesticides, and drugs. In recent decades, great efforts have been made to identify new SMs and to elucidate their biosynthetic pathways and regulation mechanisms. This fascinating research field has attracted enormous efforts, with the dual purpose of expanding the knowledge on plant secondary metabolism, and of exploiting this knowledge toward large-scale production of SMs. This Special Issue invites articles that focus on elucidation of SM biosynthetic pathways, identification and characterization of involved genes and enzymes, identification of external factors and cell signaling pathways regulating secondary metabolism, and manipulation of biosynthetic pathways to improve yields of desired SMs or to obtain novel derivatives.



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Message from the Editor-in-Chief

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