



## Auxin Mediated Regulation of Growth and Development in Plants

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### Message from the Guest Editor

Auxin, a master regulatory phytohormone, controls many aspects of plant growth and development primarily by regulating cell proliferation, cell expansion, and cell differentiation. While Indole-3-acetic acid represents the major natural auxin in plants, there are several other natural and synthetic chemicals that exhibit auxin-like activities. Several of these “synthetic auxins” are widely used as selective herbicides in agriculture. While auxin is known to control plant physiological processes through both genomic and non-genomic responses, to date, we have a better understanding of molecular mechanisms involved in genomic responses than in nongenomic responses. Recent studies have broadened our knowledge of biosynthesis, transport, signaling, and physiological responses of auxin. Although most fundamental studies on auxin biology have been carried out using the model plant *Arabidopsis*, the findings of these studies have had a significant impact on agricultural crops.





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## Message from the Editor-in-Chief

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