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## Chromatin, Epigenetics and Plant Physiology

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This eBook focuses on current progress in understanding the role of chromatin structure, its modifications and remodeling in developmental and physiological processes. Eukaryotic genomes are packed into the supramolecular nucleoprotein structure of chromatin. Therefore, our understanding of processes such as DNA replication and repair, transcription, and cell differentiation requires an understanding of the structure and function of chromatin. While the nucleotide sequence of the DNA component of chromatin constitutes the genetic material of the cell, the other chromatin components (and also modifications of bases in the DNA itself) participate in so-called epigenetic processes. These processes are essential, e.g., in ontogenesis or adaptation to environmental changes. Therefore, epigenetics is particularly important (and elaborated) in plants that show a high developmental plasticity and, as sessile organisms, display an enormous capacity to cope with environmental stress. In these processes, epigenetic mechanisms show a crosstalk with plant signaling pathways mediated by phytohormones and redox components. You are welcome to read examples of current research and review articles in this hot research topic.

