Special Issue

Epigenetic Control of Chromatin Organization and Plasticity

Message from the Guest Editor

The genomic information of each eukaryotic cell is packaged within the nucleus in the form of chromatin, a polymeric complex composed primarily of DNA and histone proteins, but also comprising noncoding RNA and a multiplicity of structural nonhistone proteins. Nucleosomes act as fundamental units of chromatin packaging and play pivotal roles in the coordination between chromatin architecture and functions by means of epigenetic mechanisms. These include covalent modifications of DNA and histones, exchange of specialized histone variants into existing nucleosomes, nucleosome positioning and density, three-dimensional chromatin organization, noncoding RNAs, and transcriptional regulatory networks. The harmonious combination of all these epigenetic mechanisms dynamically controls the degree of chromatin condensation and determines spatiotemporal patterns of gene transcription for a given cell/organism, thus contributing to an extensive range of biological processes. This Special Issue aims to cover recent progress in this exciting field of research.

Guest Editor

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Genes is central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fast-moving field. There is a need for good quality, open access journals in this area, and the *Genes* team aims to provide expert manuscript handling, serious peer review, and rapid publication across the whole discipline of genetics. Starting in 2010, the journal is now well established and recognised. Why not consider *Genes* for your next genetics paper?

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