



Chromatin Organization during Cell Differentiation

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Message from the Guest Editors

Recent studies have highlighted the relevance of the chromosome organization in the cell nucleus for the correct expression of the genes. The two main chromatin compartments, A and B, identified by HiC analyses, are endowed with very different structural and functional properties: the former is very gene-dense and is replicated early on, mainly located in the inner part of the nucleus, and the other is gene-poor and is replicated late, located at the nuclear and the nucleolar periphery. This organization is highly dynamic, allowing a repositioning of genes and chromosomes within nuclei during cell differentiation to correctly reorganize expressing genes. Disturbances in chromatin organization during cell differentiation could be responsible for future genome malfunction, subsequently leading to genetic diseases.

In this Special Issue, we aim to publish reviews and original papers covering recent advances in the dynamic reorganization of genes, chromatin and chromosomes within cell nuclei, not only during normal cell differentiation but also in pathological conditions, and we invite colleagues to present papers in this topic.





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Message from the Editor-in-Chief

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