Special Issue

Epigenetic Regulation of Vascular Smooth Muscle Cells During Development and Disease

Message from the Guest Editors

Vascular smooth muscle cells (vSMCs) form the tunica media of arteries and veins and play a key role in establishing and stabilizing blood vessels during development and the regulation of vascular tone and tissue perfusion in adulthood. It is well known that vSMCs display a high degree of plasticity during disease progression, switching from a differentiated and contractile phenotype to a proliferative and migratory phenotype, known as vSMC de-differentiation. Recent reports using cell lineage tracing and single-cell RNA sequencing have revealed that vSMCs possess multiple differentiation potentials and acquire a variety of phenotypes, including osteoblast-like, macrophage-like, and mesenchymal-like characteristics. In recent years, epigenetics has become the most prominent mechanism used to study the regulation of gene expression both during development and disease states. In this Special Issue, we invite manuscripts on the epigenetic regulation of the vSMC phenotype during development and disease.

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Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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