

Special Issue

Hyaluronan and Proteoglycans in Cancer and Inflammatory Diseases: Molecular Mechanisms and Therapeutic Implications

Message from the Guest Editors

This Special Issue will provide a comprehensive understanding of the roles of hyaluronic acid (HA) and proteoglycans in cancer and inflammatory diseases, highlighting their potential as targets for innovative therapies. Growing evidence underscores their critical involvement in the regulation of cancer progression and inflammatory responses. In the tumor microenvironment, HA and proteoglycans modulate key hallmarks of cancer cells, including cell proliferation, migration, metabolism, inflammation, and angiogenesis. Similarly, in inflammatory diseases, they modulate immune responses and tissue remodelling, contributing to chronic inflammation and fibrosis, as well as the resolution of inflammation. This Special Issue invites original research articles and reviews that explore the molecular mechanisms through which HA and proteoglycans influence tumor progression and inflammatory pathways. Furthermore, novel therapeutic strategies targeting HA and proteoglycans in these diseases, such as enzyme-based treatments, small molecules, and nanomaterials designed to modulate the extracellular matrix, will be discussed.

Guest Editors

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