Special Issue

Tumor Microenvironment in Head and Neck Squamous Cell Carcinoma

Message from the Guest Editors

Head and neck squamous cell carcinoma (HNSCC) remains a major clinical challenge due to its high heterogeneity, frequent late-stage diagnosis, and resistance to conventional therapies. Central to its pathogenesis is the tumor microenvironment (TME), which is a complex and dynamic network composed of cancer cells, stromal cells, immune infiltrates, extracellular matrix components, and signaling molecules. This environment plays a crucial role in modulating tumor growth, invasion, immune escape, and therapy resistance. Understanding the cellular and molecular interactions within the TME, including the roles of cancer-associated fibroblasts (CAFs), immune checkpoints, and tumor-infiltrating lymphocytes (TILs), is essential for advancing precision medicine in HNSCC. The current Special Issue invites contributions focused on the molecular and cellular components of the TME in HNSCC, aiming to uncover novel insights for improved prognosis and therapeutic innovation.

- Keywords
- head and neck oncology 3D tumor models
- cancer-associated fibroblasts
- phototherapy
- exosomes

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