Special Issue

Innovations in Stem Cell-Enhanced Oncolytic Virotherapy

Message from the Guest Editor

Stem cell-enhanced oncolytic virotherapy combines the tumor-targeting abilities of stem cells with the cancer-killing potential of oncolytic viruses. While these viruses selectively infect and destroy cancer cells, their effectiveness is often limited by rapid immune clearance. Using stem cells as carriers helps shield the viruses, enabling efficient delivery to tumor sites where they can replicate, lyse cancer cells, and trigger strong anti-tumor immune responses. Stem cell carriers also support viral amplification and help remodel the tumor microenvironment, further enhancing therapeutic activity. This Special Issue highlights recent advances, clinical applications, and emerging strategies in this rapidly evolving field. We invite cutting-edge research and comprehensive reviews exploring the synergistic interactions between stem cells and oncolytic viruses, their mechanisms of action, therapeutic benefits, and key challenges.

Guest Editor

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"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

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