Special Issue

Advances in T Cell Targeting for Cancer Immunotherapy

Message from the Guest Editor

Over the past few decades, translational research has significantly advanced cancer immunotherapy across a wide range of tumor types. Central to these breakthroughs are T cells, particularly through adoptive cell therapies such as chimeric antigen receptor (CAR) T cell therapy, T cell receptor (TCR)-engineered T cells, and tumor-infiltrating lymphocyte (TIL) therapy. While these strategies have shown remarkable success in treating hematologic malignancies, their effectiveness against solid tumors remains limited. A significant obstacle is the immunosuppressive tumor microenvironment (TME), which hinders T cell infiltration, persistence, and function. Addressing these challenges is crucial for improving clinical outcomes. Beyond adoptive T cell engineering, several innovative approaches are emerging to enhance T cell-mediated tumor targeting. For instance, bispecific T cell engagers (BiTEs) represent a promising strategy by physically bridging endogenous T cells to tumor cells. This Special Issue aims to further explore various strategies addressing the challenges posed to T cell targeting by the tumor microenvironment.

Guest Editor

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Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. Cells encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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