

Special Issue

Hematopoietic Stem Cells and Cancer Immunotherapy

Message from the Guest Editor

Recent advances in hematopoietic stem cell (HSC) biology and transplantation have significantly improved cancer treatment, especially for blood cancers. Small molecules like UM171 and SR1 enable the expansion of cord blood-derived CD34⁺ HSCs, enhancing engraftment and reducing complications. Gene editing tools, such as CRISPR-Cas9, are being investigated to correct mutations or improve HSC function for personalized therapies. Adoptive cell therapies (ACTs), including CAR-T and CAR-NK cells, have shown great potential in targeting cancers. Despite these innovations, challenges persist. Maintaining long-term HSC stemness during expansion remains difficult. ACT effectiveness against solid tumors is limited by the tumor microenvironment and immune evasion. For this Special Issue of *Cancers*, we welcome original research and review articles that provide an overview of the most recent advances in hematopoietic stem cell transplantation and immunotherapies for cancer treatment, as well as evolving challenges in this field.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Cancers (ISSN 2072-6694) is an international, online journal addressing both clinical and basic science issues related to cancer research. The journal will continue its open access format, which will certainly evolve to ensure that the journal takes full advantage of the rapidly changing world of information and knowledge dissemination. It publishes high-quality clinical, translational, and basic science research on cancer prevention, initiation, progression, and treatment, as well as other related topics, particularly to capture the most seminal studies in the rapidly growing area of immunology, immunotherapy, and tumor microenvironment.

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