

Special Issue

Unraveling the Mechanistic Pathways of Immune Cell Engagers in Lymphoproliferative Diseases

Message from the Guest Editor

Lymphoproliferative neoplasms are rare hematological cancers spanning a broad spectrum, from indolent to highly aggressive. Over the last few years, the treatment landscape of lymphoproliferative diseases (LPDs) has rapidly changed with the advent of immunotherapies, offering remarkable remissions in patients who have failed conventional immunochemotherapy. Among these, T cell engagers (TCEs) and mainly BiTEs are antibodies engineered to bind a cancer cell antigen and a T cell trigger. TCEs redirect T cells to recognize and kill cancer cells. Several TCEs have been approved in LPD, but challenges such as on-target/off-tumor toxicity and cytokine release syndrome remain a concern. The field is rapidly expanding with over 200 immune cell engagers in clinical trials, testing novel compounds and combinatorial regimens even as first-line treatments. This Special Issue aims to collect the most recent advances across the field of immune cell engagers, focusing on mechanisms of action, molecular pathways, avenues of improving safety, reducing side effects, and developing "conditional" immune cell engagers that only activate within the tumor microenvironment.

Guest Editor

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