

## Special Issue

# Advanced Research on CAR-T Cell Therapy

### Message from the Guest Editor

Although CAR T cell therapy is effective in liquid cancer therapy, its application in solid cancer is difficult. On the other hand, TCR T cell therapy appears to be effective in some cases, for example, NY-ESO-1 and MAGE-A4. Compared with the TCR-T cell therapy, infused CAR T cells cannot be maintained for long or their function decreases rapidly. As a majority of infused cells differentiate into effector memory or terminal memory cells, central memory and stem cell memory formation is not enough. In this Special Issue, several studies will be reported. The co-expression of IL-7 and CCL19 can recruit APC cells and activate bystander host cells and induce antigen spread. The co-expression of membrane-bound IL-12 induces memory differentiation after antigen stimulation and increased tumor suppression. Lymph-node-targeting amphiphile vaccine can boost CAR-T cells and induce antigen spread. Using these approaches and few new ones, several cases of solid tumors will be cured with CAR T cell therapy.

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