

CAR-T Cell Therapy for Solid Tumors (BP2301)

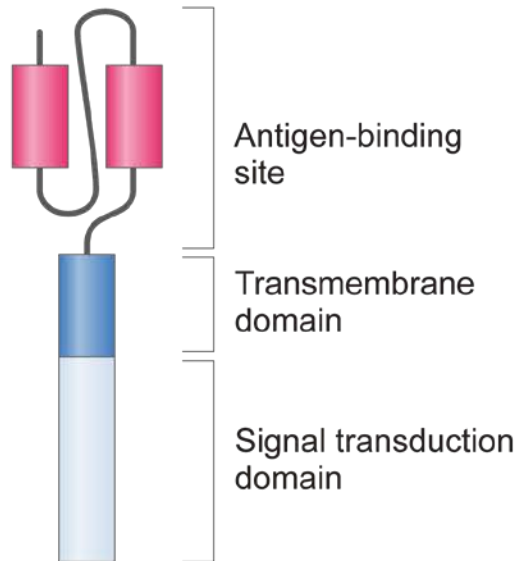
Supplemental Information

August 19, 2019

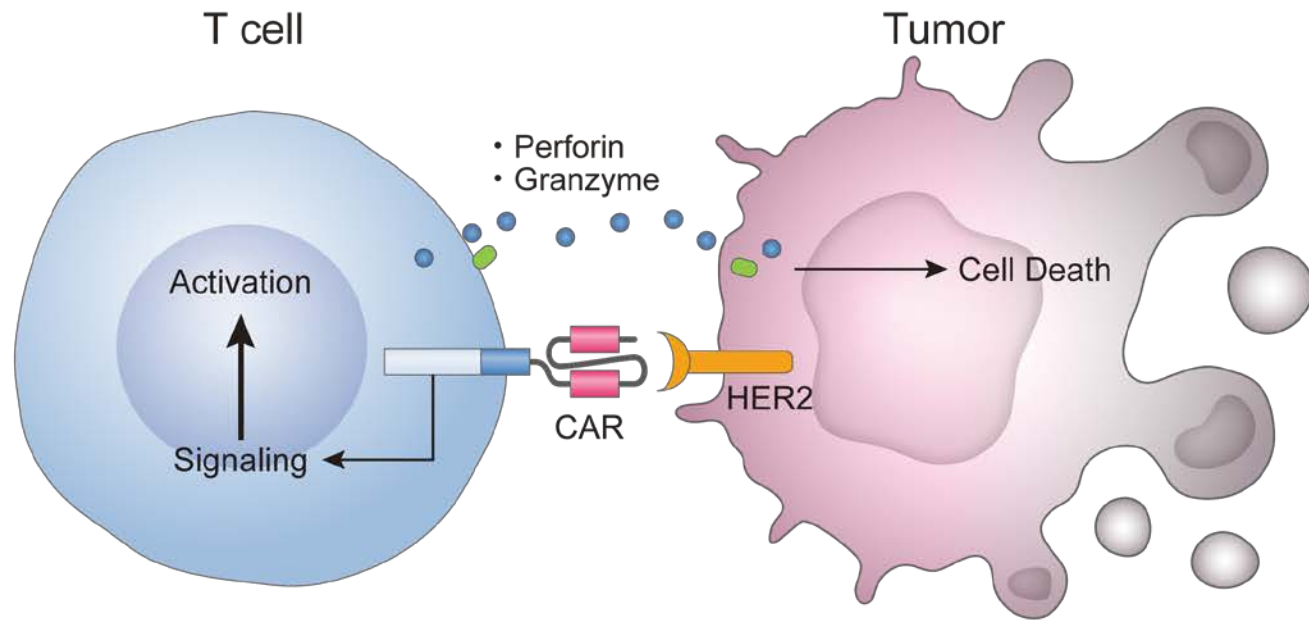
Mechanism of the Anti-Tumor Effect of CAR-T Cells

A chimeric antigen receptor (CAR) is a protein designed to bind to certain tumor antigens on cancer cells. It also contains a signal transmitting domain to activate T cells. By transducing a CAR into a T cell, the CAR-T cell can come to recognize tumors and exert anti-tumor effects.

CAR structure

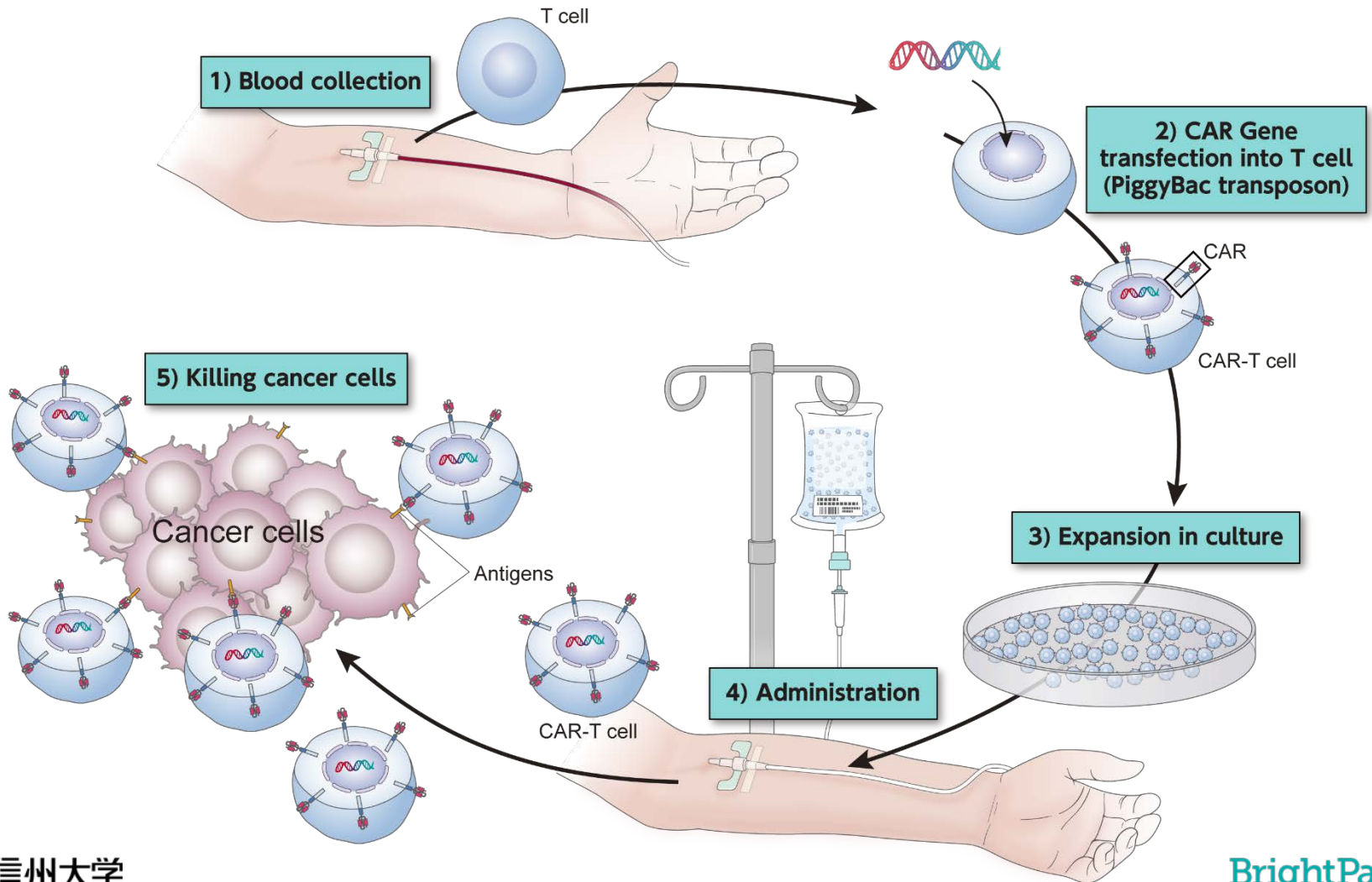


Mechanism of action



Flow of Treatment in CAR-T Cell Therapy

An anti-tumor effect is achieved by transfecting CAR genes into T cells collected from the patient's blood, growing them in culture and returning the CAR-T cells into the patient's body.

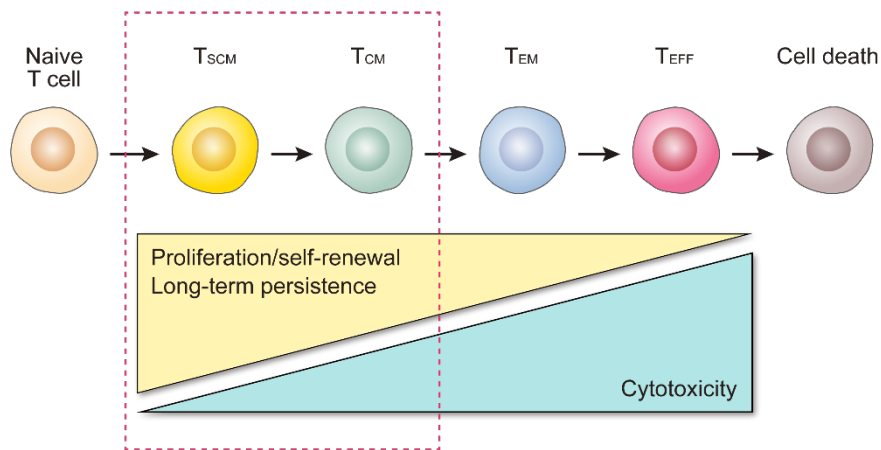


Characteristics of BP2301

BP2301 is largely comprised of young memory T cells with high proliferative capacity and long-term persistence, leading to durable anti-tumor effects.

T cell subset and differentiation

Effector function (anti-tumor function) is enhanced upon T cell differentiation, while memory function and proliferative capacity are gradually lost.



BP2301 T cell subset

The young memory-rich BP2301 cell subset maintains proliferative capacity to produce cytotoxic effector T cells after administration (left figure), while the effector-rich CAR-T subset has transient proliferative capacity and effector function (right figure).

