

CAR T Cell Therapy in Cancer

Overview of Program

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Director

T Cell Therapeutics Research Laboratory

Director

Hematologic Malignancies and
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City of Hope Comprehensive Cancer Center

DISCLOSURES

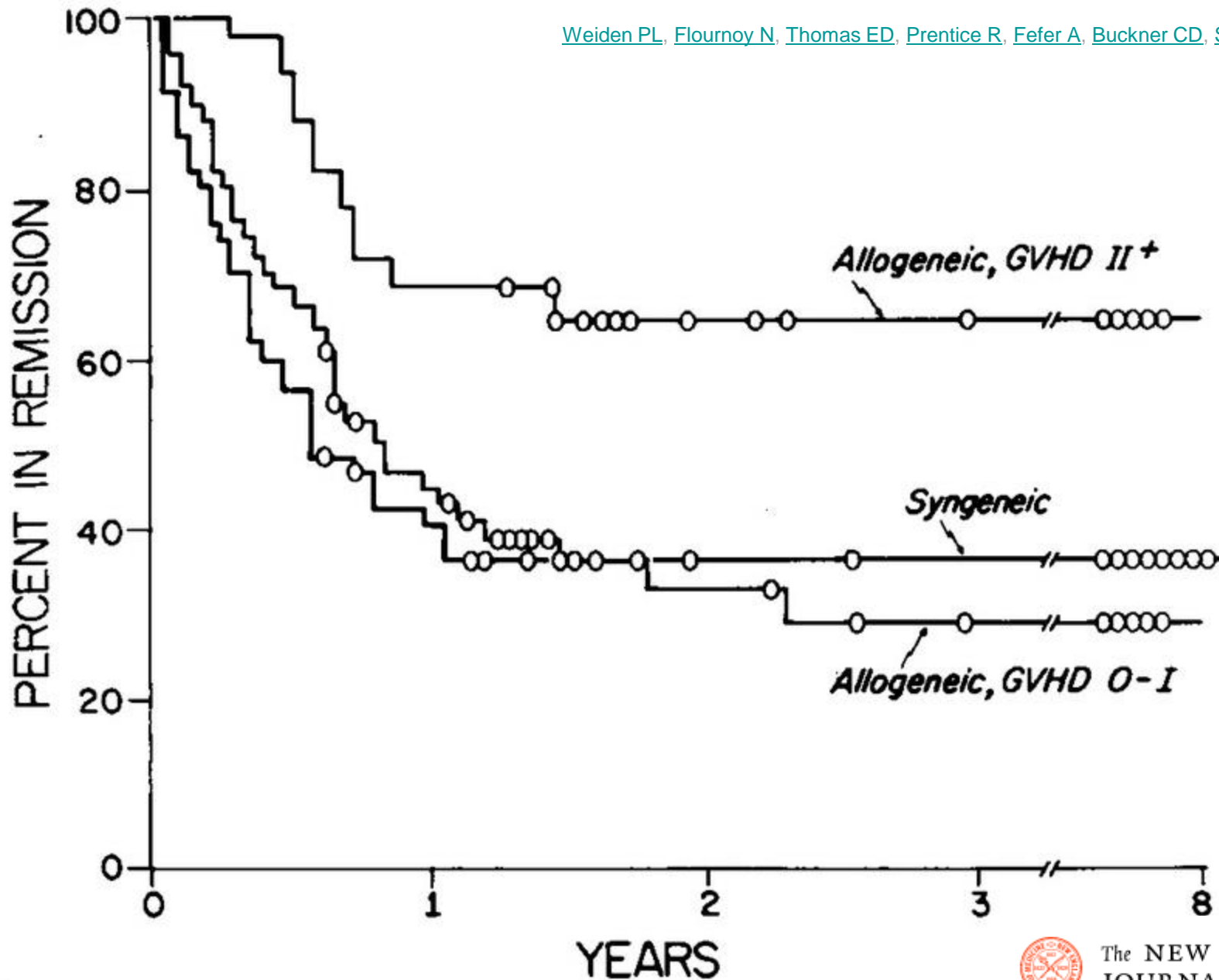
Consultant for Mustang Bio

GOALS

- Review current status of CAR T cells in the treatment of human cancer.
- Discuss recognition and management of unique toxicities.
- To develop system to work with MD's outside City of Hope in planning pre and post CAR T cell care, including timing of collection, bridging therapy and follow-up at home.

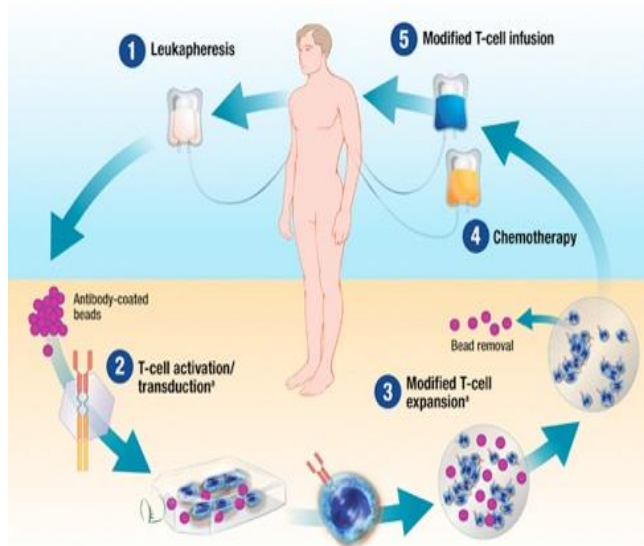
Antileukemic effect of graft-versus-host disease in human recipients of allogeneic-marrow grafts

[Weiden PL](#), [Flournoy N](#), [Thomas ED](#), [Prentice R](#), [Fefer A](#), [Buckner CD](#), [Storb R](#).



Manufacturing for CAR T-cell Therapies

How it works



Levine et al Cancer Gene Therapy 2015

CAR T cells “A Living Drug”

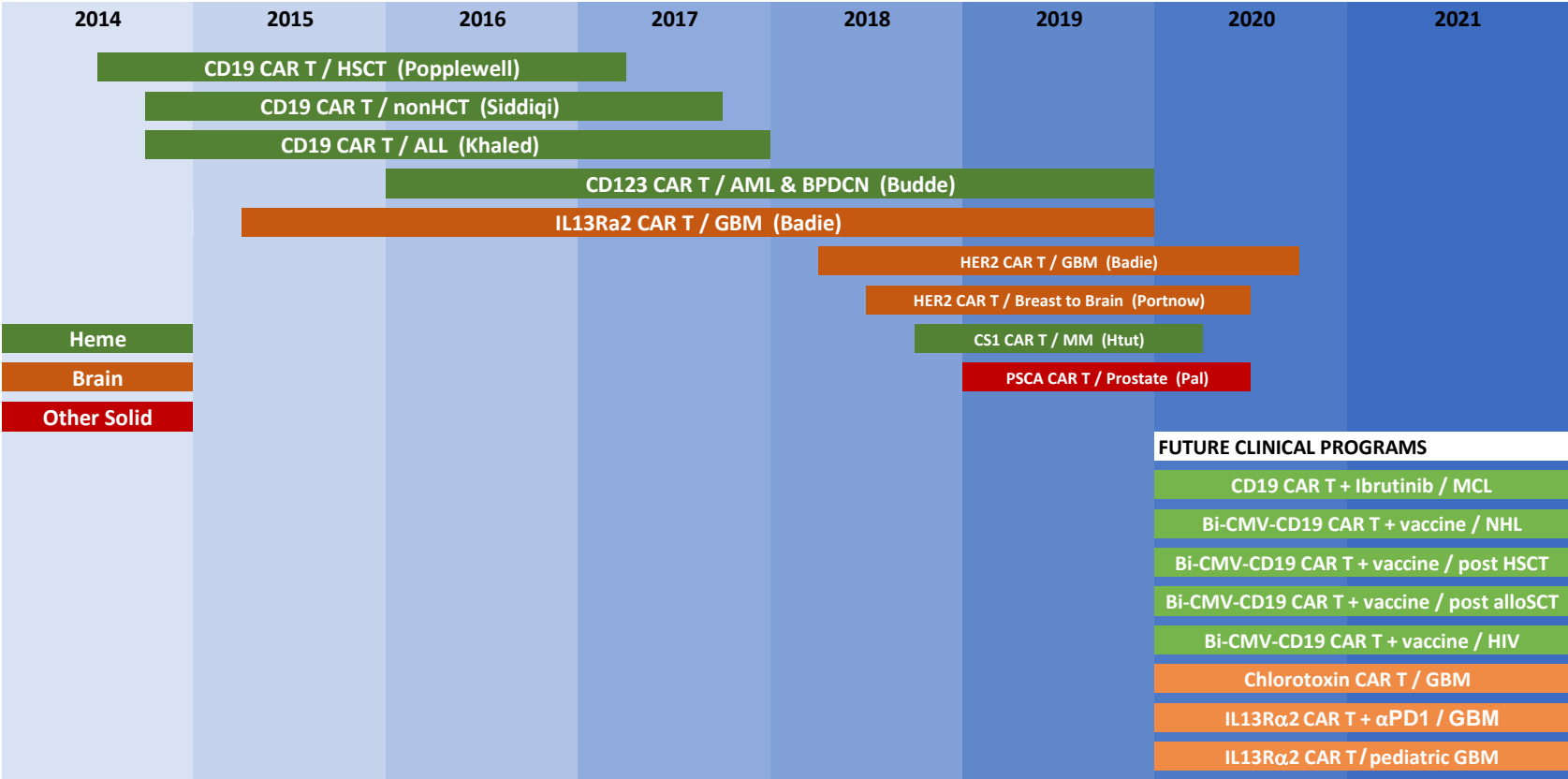
➤ Advantages of CARs

- Modular design
- HLA-independent antigen recognition
- Functional in both CD4 and CD8 T cells
- Significant numbers of tumor specific T cells can be rapidly generated
- The potential to generate long-term antitumor immunity

➤ Challenges

- Single antigen specificity
- Primarily restricted to extracellular antigens
- On-target and off-tumor toxicities
- Potency

TCTRL Phase I CAR T Cell Clinical Trials



COH T Cell Therapy Research Program

