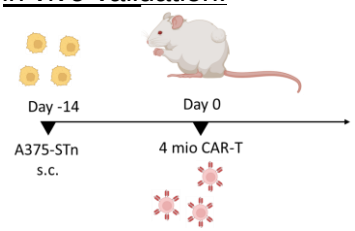
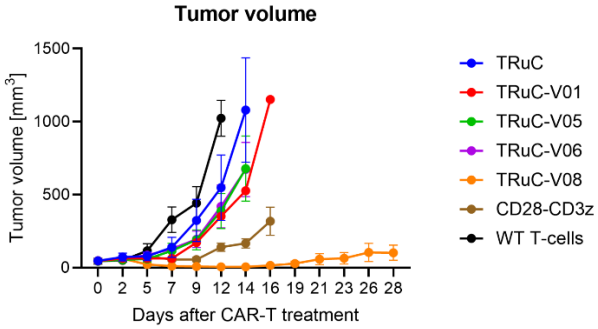
Sialyl-Thomsen-nouveau (STn) directed CAR-T cells to treat solid tumors

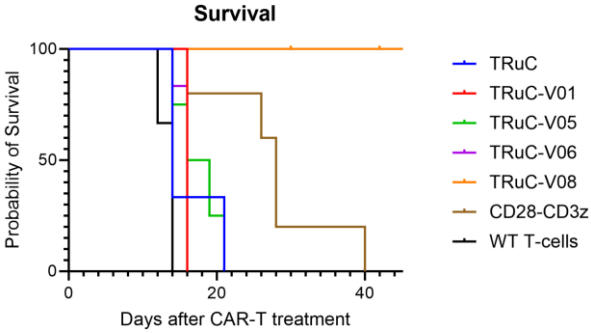
Rationale for STn as Tumor Antigen:

1. Most proteins are glycosylated
2. Aberrant glycosylation
   - Independent from cell type
   - Independent from surface proteins
3. Redundancy of synthesis pathways
4. High tumor specificity

in vivo validation:







New generation of CAR-T cells against solid tumors targeting STn. This glycan is expressed in more than half of all analyzed solid tumors with restricted expression on healthy tissue. The new CAR-T design combines the advantage of native-like TCR-signaling and the benefits of costimulatory molecules but eliminates tonic signaling observed in classic CAR-T cells. Multiple other tumor targets with clinically tested targeting domains are currently in evaluation with encouraging results.

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Opportunity Licensing and (co-)development of this very promising therapeutic option.

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