ATOR-1144 is a tumor-directed CTLA-4 x GITR bispecific antibody that acts by depleting Tregs and activating effector T cells and NK cells

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Background

GITR is expressed on TILs and tumor cells

Rationale

- CTLA-4 is a checkpoint receptor highly expressed on tumor-infiltrating T cells, particularly T regulatory cells (Tregs). 1-4
- GITR is a TNFR superfamily member highly expressed on tumor-infiltrating T cells, in particular Tregs, but also on NK cells and tumor cells. 1, 5
- ATOR-1144 combines targeting of CTLA-4 and GITR to achieve tumor-directed immune activation.

About ATOR-1144

- ATOR-1144 is a CTLA-4 x GITR bispecific (scFv) antibody that binds to both targets with high affinity (mM range)
- ATOR-1144 was developed for treatment of solid tumors and hematological malignancies.

References

3. Tuber et al cscm Vol 36; 2019: 1069-1075
4. Livsey et al cscm 2019: 1196-1207
5. Philipp et al cscm 2019: 1503-1504

ATOR-1144 induces formation of cell complexes

Summary and Conclusions

- ATOR-1144 acts through several mechanisms:
  - Activation of effector T cells
  - Depletion of Tregs and tumor cells
  - Activation of NK cells for enhanced tumor cell killing

Conclusions

- ATOR-1144 is a next-generation CTLA-4 targeting antibody with enhanced Treg depletion and direct anti-tumor activity

Dual targeting of CTLA-4 and GITR is expected to direct the effect to the tumor area

Contact information

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