RTX-224, an Allogeneic Red Cell Therapeutic Expressing 4-1BBL and IL-12, Exhibits Potent In Vivo Activity and a Favorable Preclinical Safety Profile

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INTRODUCTION

4-1BBL is a costimulatory molecule that can also drive T and NK cell proliferation and the innate immune response. RTX-224 demonstrated synergistic effects of 4-1BBL and IL-12 on these activities.

RESULTS AND METHODS

- Figure 1: RTX-224 Mediates Immunosuppressive Effects Through Simultaneous Presentation of the Costimulatory 4-1BBL and the Cytokine IL-12
- Figure 2: RTX-224 Displays Antitumor Activity in Lung Metastasis and Subcutaneous B16F10 Tumor Models
- Figure 3: RTX-224 Demonstrates Synergistic and Complementary Effects of 4-1BBL and IL-12 in Promoting the Expansion and Activation of Key Tuki-Baka Cells Driving Invasive and Adaptive Immunity
- Figure 4: A Minirelapse Assay for RTX-224
- Figure 5: mRBC-224 Displays Antitumor Activity in Lung Metastasis and Subcutaneous B16F10 Tumor Models
- Figure 6: In Contrast to Systemic Therapy With Recombinant IL-12-a, mRBC-224 Results in No Observed Organ Toxicity in Vivo Likely Due to Restriction of Therapy to the Vasculature

CONCLUSIONS

- In RTX-224, 4-1BBL, and IL-12 have synergistic and complementary effects in promoting innate and adaptive immunity.
- A minirelapse assay of RTX-224 demonstrated potent antitumor activity in vivo in several tumor models when administered as monotherapy or in combination with a checkpoint inhibitor.
- RTX-224 alone or in combination with an anti-POD antibody promoted an increased tumor regressions.
- Compared to systemically recombinant IL-12, RTX-224 resulted in no observed toxicity likely due to restriction of therapy to the vasculature.
- RTX-224 demonstrated a potentially safe therapeutic activity with high patient tolerability, preclinical antitumor activity and no observed toxicity.
- Based on these results, clinical studies are planned to evaluate RTX-224 for the treatment of patients with solid tumors.

REFERENCES

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DISCLOSURES

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