and NK cells in a dose-dependent manner, and reduces growth of established tumors in vivo. This preclinical data, demonstrates conditional dual stimulation of 4-1BB and OX40 and supports further development of APVO603, a promising immuno-oncology therapeutic with potential for benefit in solid tumors.

Ethics Approval Treatment of study animals was in accordance with conditions specified in the Guide for the Care and Use of Laboratory Animals, and the study protocol (ACUP 20) was approved by the Institutional Animal Care and Use Committee (IACUC).

REFERENCES

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634 PRODUCTION AND TESTING OF A NOVEL BISPECIFIC NANOBODY CONSTRUCT TARGETING NK CELLS AND EGFR EXPRESSING MALIGNANCIES
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Background The ability to kill tumor cells with an acceptable toxicity profile, makes Natural Killer (NK) cells promising assets for cancer therapy. However, strategies to enhance the preferential accumulation and activation of NK cells in the tumor microenvironment would likely increase the efficacy of NK cell-based therapies.

Methods In this study, we show a novel bispecific nanobody-based construct (biVHH) targeting both CD16A (low-affinity Fc receptor: FcRγ) on NK cells and EGFR on tumors of epithelial origins.

Results Higher levels of NK cell activity and subsequent tumor cell lysis were found in vitro in the presence of the biVHH and were dependent on the expression of both CD16A and EGFR while they were independent of the KRAS mutational status of the tumor. Increased NK cell activity was found in NK cells derived from colorectal cancer (CRC) patients when co-cultured with the biVHH and EGFR expressing tumor cells. Finally, higher levels of cytotoxicity were found against patient-derived metastatic CRC cells in the presence of the biVHH and autologous peripheral blood mononuclear cells or allogeneic NK cells.

Conclusions KPMW101 is created by chemical conjugation of a CD38-specific binder to clinical grade intravenous immunoglobulin (IVlg) pooled from healthy donors. Kleo’s MATE™ technology enables efficient site-directed chemical conjugation to ‘off-the-shelf’ IVlg and allows the development of antitumor agents with rapidly introduced target specificity. Our platform allows for chemical engineering of existing IVlg in a cost-efficient manner. This technology relies on synthetic compounds that consists of antibody binder with react-and-release mechanism.

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Immunotherapy toxicities
637 IMMUNE-RELATED ADVERSE EVENTS (IRAEs) MAY INDICATE A FAVORABLE PROGNOSIS IN METASTATIC RENAL CELL CARCINOMA (MRCC) PATIENTS TREATED WITH IMMUNE CHECKPOINT INHIBITORS (ICI)

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Background Immune checkpoint inhibitors (ICI) have become an increasingly utilized treatment in metastatic renal

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