WT1-specific TCRs directed against newly identified peptides install antitumor reactivity against acute myeloid leukemia and ovarian carcinoma

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In brief

With newly identified Wilms' tumor gene 1 (WT1) peptides, derived from the HLA class I associated ligandome of primary acute myeloid leukemia (AML) and ovarian carcinoma (OVCA) samples, high-avidity WT1-specific T-cell clones were identified in the allogeneic-HLA T-cell repertoire of healthy donors. Using broad panels of malignant cells and healthy cell subsets, four WT1-specific TCRs were selected as promising candidates for TCR gene transfer strategies in AML and OVCA patients.

