

**Supplementary Figure 1:**

Representative Ki67 staining in MAIT, CD4 and CD8 T cells at time of aGVHD (upper panel) and 12 months after HSCT (lower panel) in a patient from the CRYOSTEM cohort.

**Supplementary Figure 2:**

NSG mice were injected with  $20 \times 10^6$  CFSE-labeled human PBMCs without or with human IL-15 (100 ng) and/or 5-OP-RU (1 nmol), and/or CpG (10  $\mu$ g) i.p. every 2 days from the day of transfer. The spleen was harvested 7 days later, and cells were analyzed by flow cytometry for CFSE expression (left panel) and numbers of MR1:5-OP-RU tetramer<sup>+</sup> MAIT cells and non-MAIT T cells (right panel). Wilcoxon-Mann-Witney tests were performed, significant differences are indicated compared to the control group (no 5-OP-RU/CpG/huIL-15), or between specified groups (\*,  $P < 0,05$ , \*\*,  $P < 0,01$ ).