

## Supplemental material

### **Adoptive transfer of CMV-specific TCR-T cells for the treatment of CMV infection after haploidentical hematopoietic stem cell transplantation**

Chao Ma<sup>1</sup>, Peng Chen<sup>1</sup>, Jishan Du<sup>1</sup>, Lu Wang<sup>1</sup>, Ning Lu<sup>1</sup>, Jiaojun Sun<sup>2</sup>, Xu Qilong<sup>2</sup>, Yu Wang<sup>2</sup>, Liping Dou<sup>1\*</sup>, Daihong Liu<sup>1\*</sup>

#### **Supplementary Figure 1. Strategies of CMV-specific TCRs identification.**

#### **Supplementary Figure 2. Representative flow cytometry figures for *in vitro* cytotoxicity assay.**

Representative flow cytometry figures gated from CFSE<sup>+</sup> target cells were shown. Percentage of 7-AAD<sup>+</sup> cells among CFSE<sup>+</sup> population was calculated and represented as cytotoxic lysis (%) after the value of non-effector control was subtracted.

#### **Supplementary Figure 3. Flow cytometry figures for the infused CMV-TCR-T cells.**

Percentage of CD8<sup>+</sup> Tetramer<sup>+</sup> cells gated from CD3<sup>+</sup> populations was calculated and documented after the value of non-effector control was subtracted.

#### **Supplementary Figure 4. Clone frequencies of the infused TCR-T cells.**

Clone frequencies of the transgenic CMV-targeting TCRs in the peripheral blood of each individual patient were measured by TCR $\beta$  sequencing at various time points. The time of TCR-T cells infusion was also indicated.

**Supplementary Table 1. List of top 50 TCR $\beta$  sequences and their clone frequencies from the peripheral blood T cells of Patients 01, 03 and 05.**

In Row 60, the TGCAGCGCTAACCCGACAGGGGGCGGCACTGAAGCTTTCTTT  
\_TRBV29-1\_TRBD1\_TRBJ1-1 sequence was from the transgenic CMV-targeting TCR for Patients 03 and 05.