

**Title:** Supplementary Data 1

**Description:** HLA typing of PBMC and Treg donor pairs for Figure 3. PBMCs and Tregs were HLA<sup>A</sup> typed by the Oxford Transplant Centre Histocompatibility and Genetics Laboratory. HLA loci for all experimental pairings are presented for each HLA allele. For each allele, the number of mismatches are quantified. The B130/B209 pair is completely mismatched at HLA-A,-B,-C,-DR (1,2,1,2); B218/B209 is partially mismatched at these loci (0,1,1,2); and B208/B150 is partially matched (0,0,0,1).

**Title:** Supplementary Data 2

**Description:** Homology-Directed DNA Repair Template (HDRT) used for HLA-E knock-in into B2M locus

**Title:** Supplementary Data 3

**Description:** CRISPR-Cas9 guide RNAs used for editing of B2M and CIIT