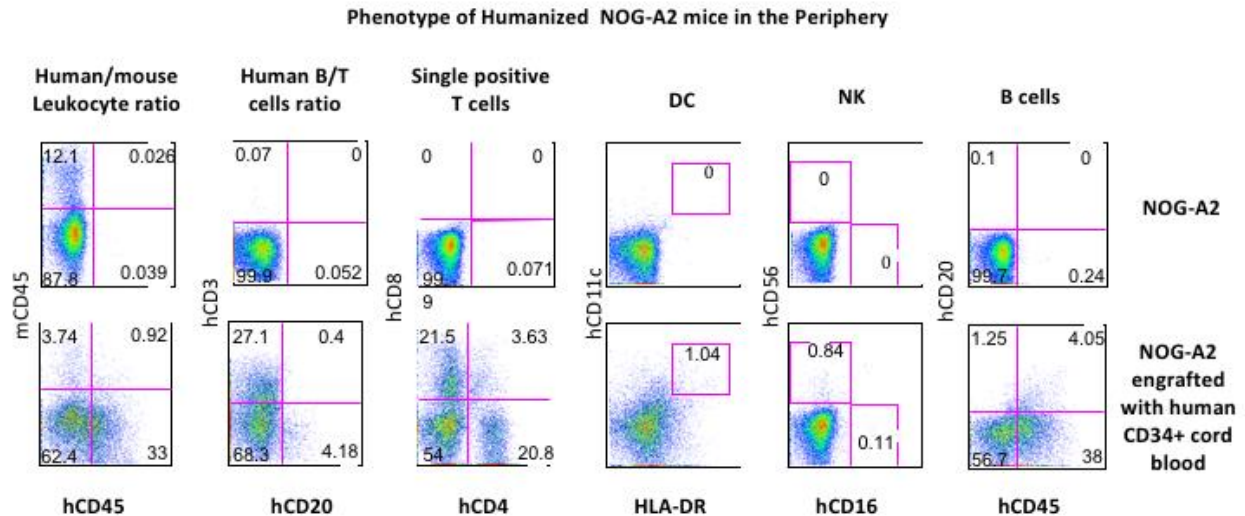


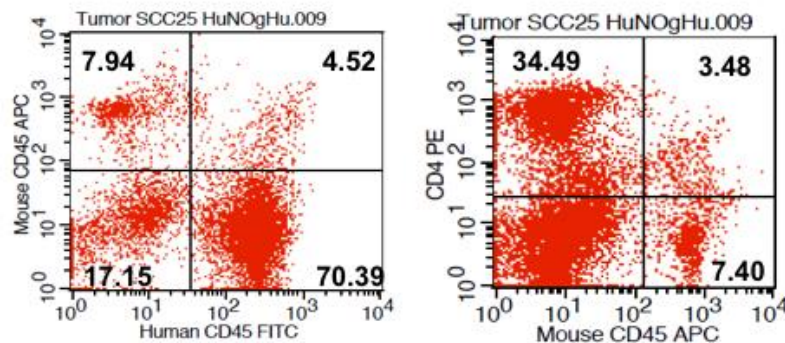
Autologous reconstitution of human cancer and immune system *in vivo*

Supplementary Material

a.



b.

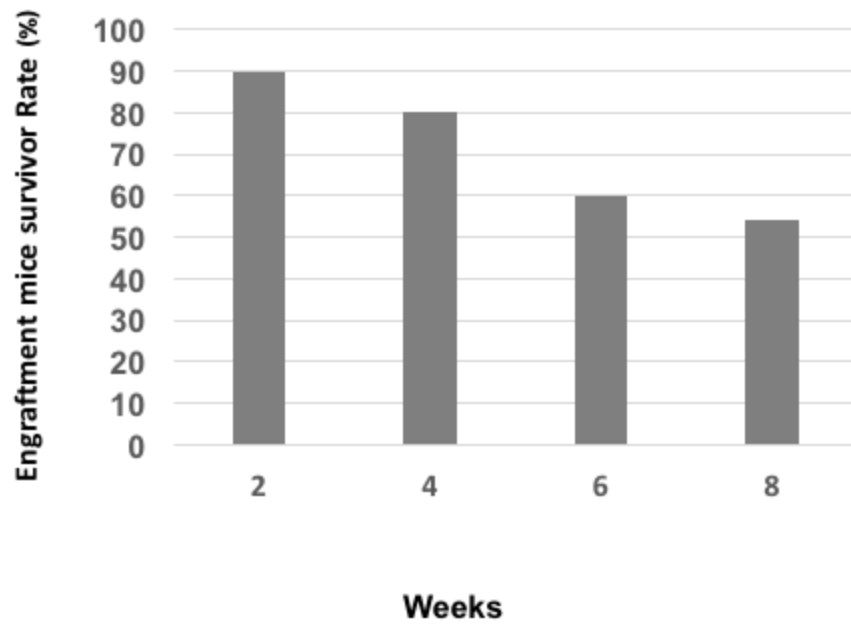


Supplemental Fig. 1. Allogeneic reconstitution of HLA-A2+ HNSCC tumor in humanized mice engrafted with HLA-A2+ cord blood. **a.** CD34+ cord blood cells from HLA-A2+ subjects were engrafted into NOG-A2 mice and their peripheral blood demonstrated human B-cells, single positive T-cells, dendritic cells, and NK cells. **b.** HLA-A2+ HNSCC cell line SCC25 (10^6) was

injected into the subcutaneous tissue, and once the tumor was over 10mm, the tumor infiltrating leukocytes segregated with Ficoll gradient and stained for both murine and human T-cells.

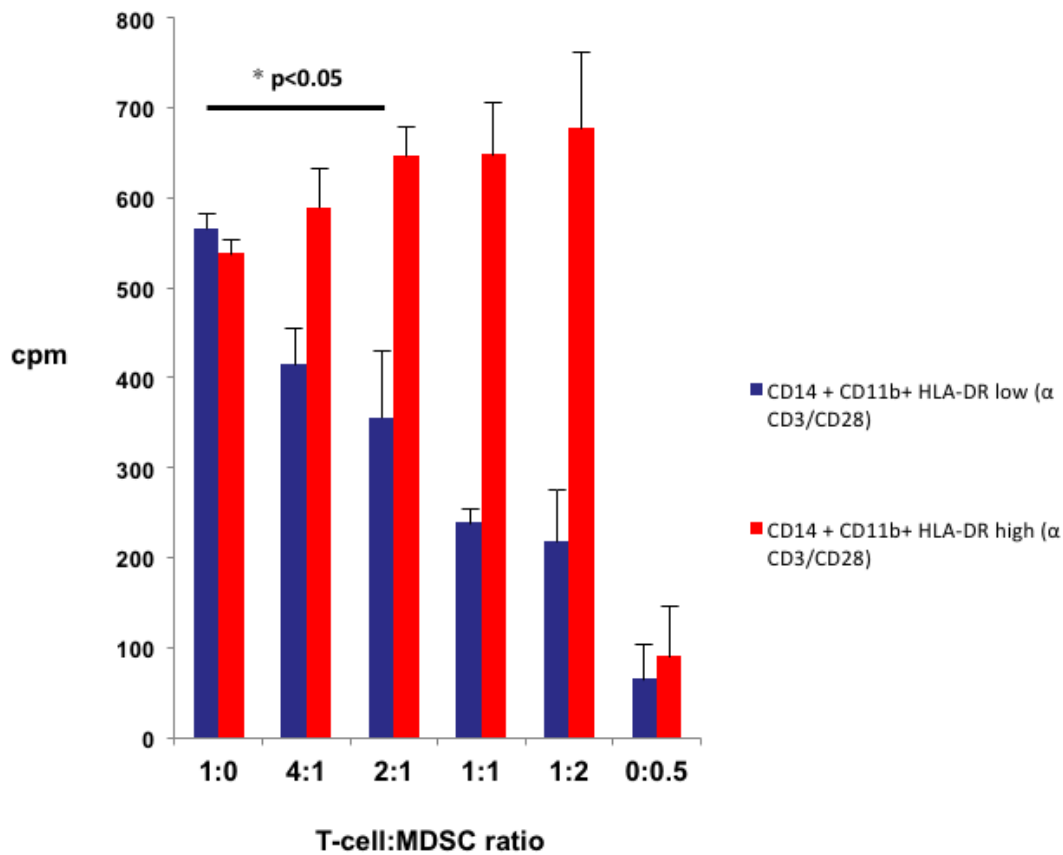
Mononuclear TILs were stained for murine and human CD45 (left panel). Significant abundance of human CD4 were found in this ungated mononuclear population (right panel).

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Supplemental Fig. 2. Depicted are the cumulative engraftment rates of CD34+ BMC.

Approximately 110 mice were engrafted and their survival rates were noted till 8 weeks post adoptive transfer. One patient donor typically yielded 8-12 engrafted mice.



Supplemental Fig. 3. T-cell suppressive activity of MDSC sorted from tumor bearing humanized mice. CD14⁺DR^{low} and CD14⁺DR^{high} cells from the spleen were sorted and mixed with human T-cells from normal subjects under T-cell stimulating conditions. T-cell and MDSC were mixed in ratios as indicated and ³H-thymidine uptake of T-cells analyzed as measured in cpm. At 2:1 ratio of T-cells and MDSC, CD3/CD28 induced T-cell stimulation were suppressed at a significant level (p<0.05). Assays were performed in triplicates.