Injury intensifies T cell mediated graft-versus-host disease in a humanized model of traumatic brain injury

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### Supplementary Table S1. Antibody panels used for analysis of chimerism and immune cell identification.

**Human-mouse chimerism, plus human lineages**  
- anti-human CD45-APC-Cy7 (2D1)  
- anti-mouse CD45,1-FITC (A20)  
- anti-human CD19-PerCP-Cy5.5 (HIB19)  
- anti-human CD3-APC (UCHT1)  
- anti-human CD33-PE (WM53)  
- DAPI

**Human T regulatory cells (True-Nuclear Human Treg Flow Kit)**  
- anti-human FOXP3-Alexa 488 (150D)  
- anti-human CD4 PE-Cy5  
- anti-human CD25-PE

**Murine MDSCs**  
- anti-mouse Ly-6C-APC-Cy7 (AL-21)  
- anti-mouse Ly-6G-PE (1A8)  
- anti-mouse/human CD11b PerCP-Cy5.5 (M1/70)  
- anti-mouse Gr1/Ly-6G-APC (RB6-8C5)  
- anti-mouse CD45.1-FITC (A20)  
- DAPI

**Human MDSCs**  
- anti-human CD14-APC-Cy7 (MφP9)  
- anti-human CD15-PE (HI98)  
- anti-human CD11b/MAC-1-FITC (ICRF44)  
- anti-human HLA-DR-APC (G46-6)  
- DAPI

**Murine microglia in brain**  
- anti-mouse/human CD11b-AF488 (M1/70)  
- anti-human CD45-PE (2D1)  
- anti-mouse CD16/32-PerCP-Cy5.5 (93)  
- anti-mouse CD206-APC (C068C2)  
- anti-mouse CD45-APC-Cy7 (30-F11)  
- anti-human/rat/mouse P2RY12 polyclonal (#APR-020)  
- donkey anti-rabbit IgG-BV421  
- Ghost dye-BV510
Supplementary Figure S1. Spleen size relative to human myeloid and B cell chimerism in spleen and peripheral blood. No significant relationship exists between length of the spleen and hCD33+ myeloid or hCD19+ B cells (n=29 mice).
Supplementary Figure S2. Regional loss of red marrow in the long bones is restricted to humanized NSG mice. (a) Tibia from each treatment group stained by hematoxylin and eosin were similar in composition to femurs. (b) C57BL/6 bone marrow did not exhibit the same defects detected in marrow of transplanted NSG mice. (c) Frequencies of hCD45+ and lineage+ cells in the marrow were not significantly impacted (n=8-9 mice per group).
Supplementary Figure S3. Human myeloid derived suppressor cell subtypes are not significantly altered by injury. (a) Human CD11b⁺ myeloid cells were categorized as polymorphonuclear (PMN) by positivity for hCD15 or as monocytic (M) if hCD14⁺ HLA-DR⁺. (b) Human myeloid suppressor cell frequencies were not significantly altered 7 days after injury. CD11b⁺ cell frequencies were determined in 8-9 mice per group in the bone marrow, peripheral blood, and spleen; whereas, MDSC frequencies were measured in 5 mice per group.
Supplementary Figure S4. Frequencies of murine myeloid derived cells are relatively unchanged 7 days after neurotrauma. (a) CD11b+ Gr1+ myeloid cells were identified by Ly6G positivity as polymorphonuclear (PMN) or as monocyteic (M) by Ly6C positivity. (b) Frequencies of MDSCs and PMN-MDSCs were modestly increased in the bone marrow. CD11b+ Gr1+ cells were determined in 8-9 mice per group in the bone marrow, peripheral blood, and spleen; whereas, MDSC frequencies were measured in 5 mice per group.