Supplementary figure 1. Ly6G<sup>hi</sup>Ly6C<sup>low</sup> BM-MDSCs decreased in vitro.

The frequency of Ly6G<sup>hi</sup>Ly6C<sup>low</sup> cells decreased significantly at day 4 with GM-CSF and IL-6 stimulus (n = 4, naive BM cells, 57.1 ± 0.7%; IL-6-treated cells, 55.9 ± 1.0%; GM-CSF-treated cells, 37.2 ± 0.8%; double-treated cells, 29.1 ± 0.4%, N.S. P > 0.999, ***P < 0.001).
Supplementary figure 2. B6 mice *ex vivo*-induced BM-MDSCs had the strongest suppressive effect on IFN-γ production

B6 mice *ex vivo*-induced BM-MDSCs significantly decreased IFN-γ production compared to BALB/c mice *ex vivo*-induced BM-MDSCs, ***$P < 0.001$, and compared to CBA/J mice *ex vivo*-induced BM-MDSCs, *$P = 0.028$. 
Supplementary figure 3. PMN-MDSCs did not inhibit allogeneic stimulation.

The ratio of 1/1, 1/3, 1/5, 1/10 PMN-MDSCs involved in allogeneic stimulation did not show inhibition. ns $P = 0.375$, N.S. $P > 0.999$. 
Supplementary figure 4. mRNA expression of inflammatory cytokines in the grafts at 2 weeks.

Relative mRNA expression of IFN-γ (A, ***P < 0.001), IL-1β (C ***P < 0.001), and VEGF-A (D, **P < 0.01) decreased compared to PBS group whereas TGF-β1 levels increased (B, *P = 0.034).