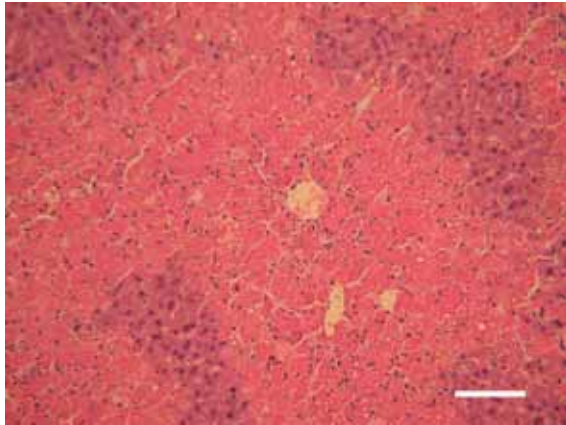
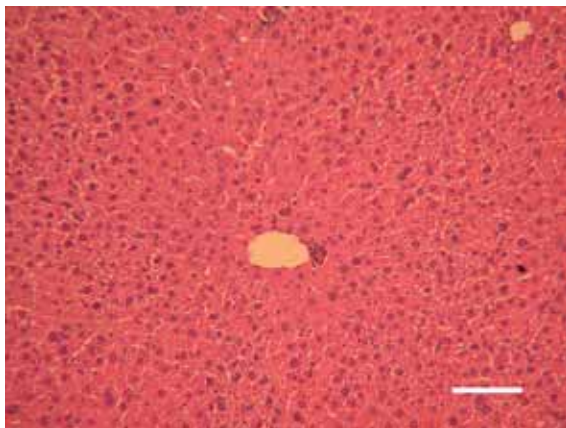


Supplementary Figure 1: Postmortem analysis of the liver of animals treated with 0.28ml/kg bodyweight CCl₄ (H&E stain). Scale bar represents 100µm.



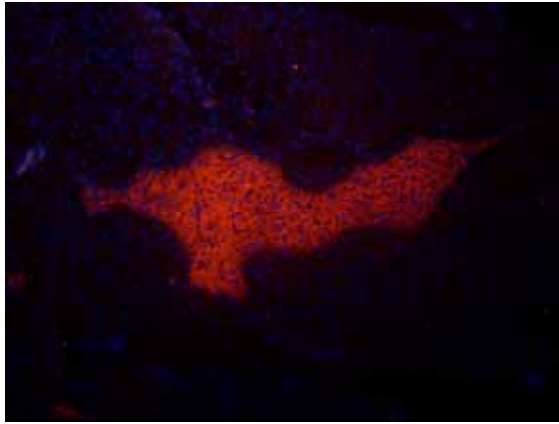
Supplementary Figure 2A: A representative histology of the regenerated liver of rescued animals at 4 weeks post cell transplantation (H&E stain). Scale bar represents 100µm.



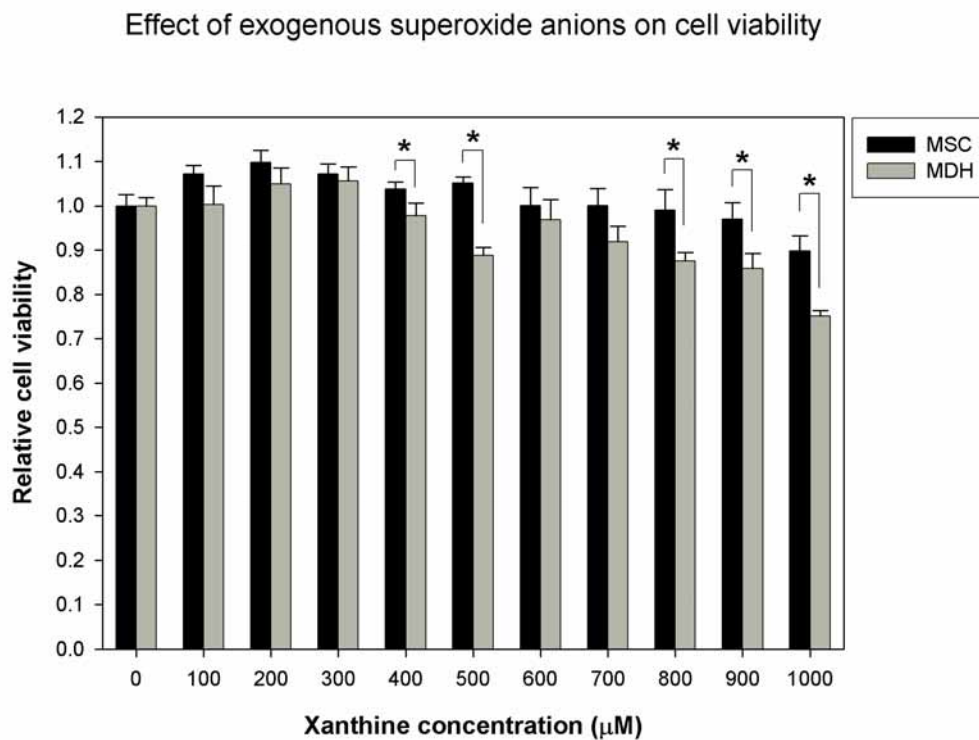
Supplementary Figure 2B: Normal NOD-SCID mice liver stained with anti-human albumin antibody to verify lack of cross-reactivity with mouse albumin. Nuclei stained by DAPI (blue).



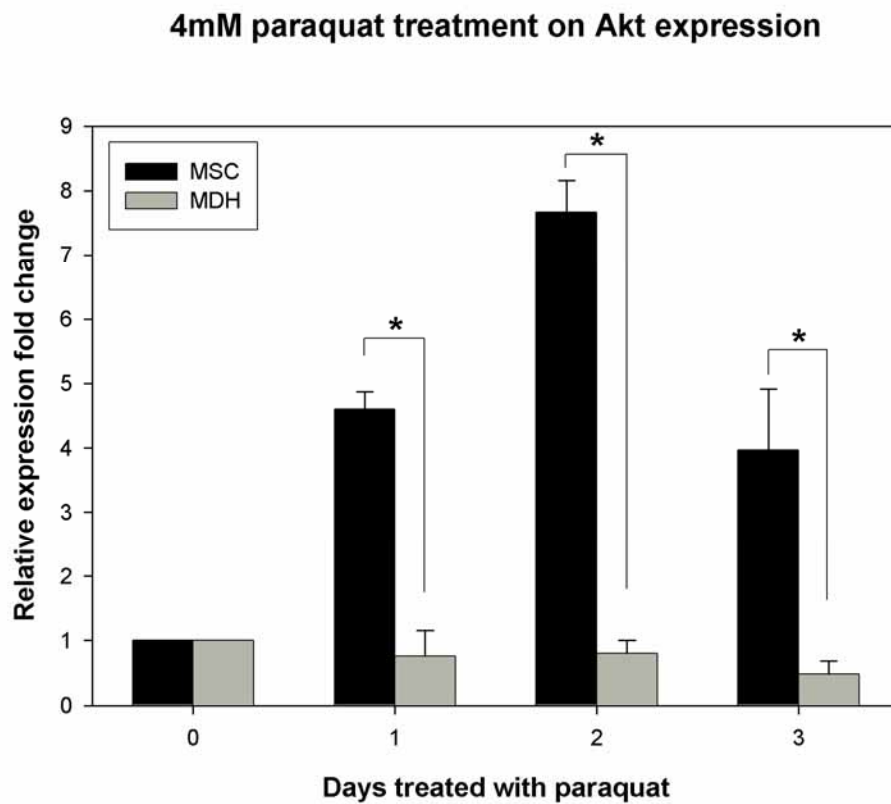
Supplementary Figure 2C: A representative patch of cells that stained positive for human albumin (red) in the liver of recipient mice rescued by infusion of MSCs at 4 weeks post transplantation. Nuclei stained by DAPI (blue).



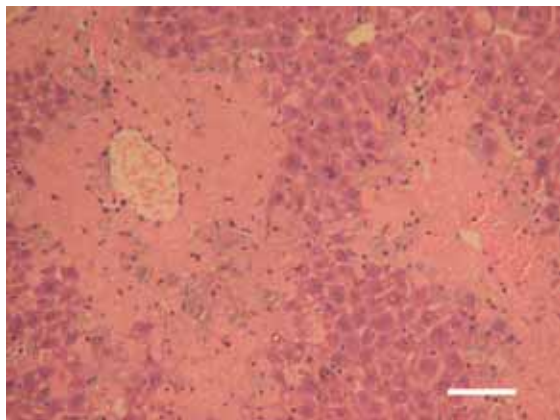
Supplementary Figure 3A: Effects of 30 minutes of exogenous superoxide anion treatment on the viability of MSCs and MDHs under in vitro culture. Superoxide anions were generated by the supplementation of xanthine oxidase and the concentration of xanthine indicated (mean \pm SD of 3 determinations).



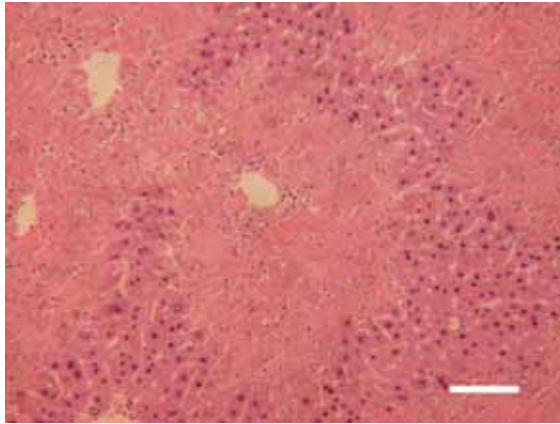
Supplementary Figure 3B: Real-time PCR analysis for changes in the relative expression of Akt in MSCs and MDHs treated with 4mM of a potent oxidant, paraquat (mean \pm SD of 3 determinations).



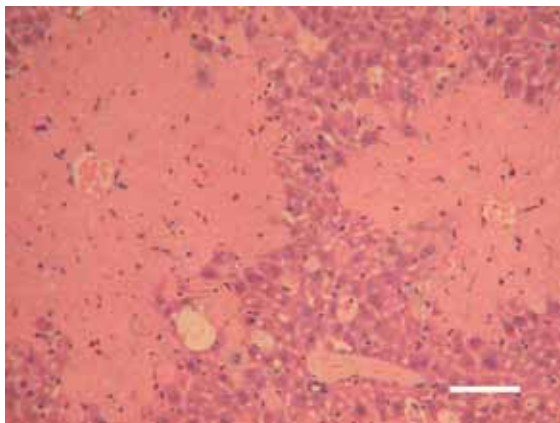
Supplementary Figure 4A: A representative histology of the extent of liver necrosis in the MDH transplantation group, at 3 days post administration of 0.28ml/kg bodyweight CCl₄ (H&E stain). Scale bar represents 100 μ m.



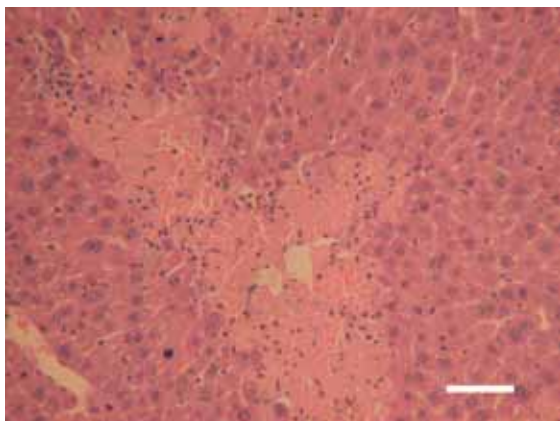
Supplementary Figure 4B: A representative histology of the extent of liver necrosis in the MDH transplantation group, at 6 days post administration of 0.28ml/kg bodyweight CCl₄ (H&E stain). Scale bar represents 100µm.



Supplementary Figure 4C: A representative histology of the extent of liver necrosis in the MSC transplantation group, at 3 days post administration of 0.28ml/kg bodyweight CCl₄ (H&E stain). Scale bar represents 100µm.



Supplementary Figure 4D: A representative histology of the extent of liver necrosis in the MSC transplantation group, at 6 days post administration of 0.28ml/kg bodyweight CCl₄ (H&E stain). Scale bar represents 100µm.



Supplementary Figure 4E: Changes in the absolute number of QuantumDot-labeled MSCs in the recipient liver at 3, 5 and 7 days post administration of CCl₄ (mean ± SD of 3 determinations).

Changes in number of donor-derived cells in recipient liver (IV-MSC)

