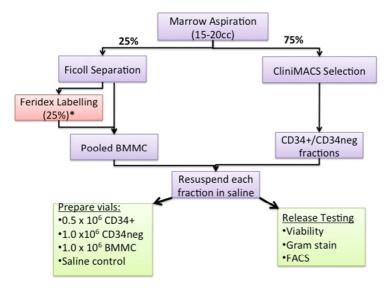
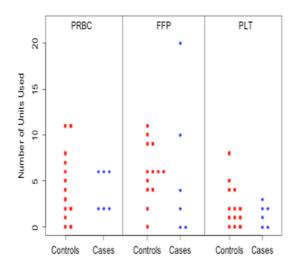
## **Supplemental Figure 1**



<sup>\*</sup>First two subjects only

Cell Processing Protocol: Red cells were lysed and one quarter of the marrow underwent Ficoll centrifugation to collect the BMMC fraction. In the first two subjects, one quarter of the BMMC fraction was incubated for 3 hours with Feridex nanoparticles ( $100\mu g/mL$ ) in the presence of protamine. Pilot studies showed that this protocol labeled 82.5% of the cells with iron. The following morning this fraction was admixed with the remaining BMMC's. The remaining cells underwent selection of CD34+ fraction using the Miltenyi CliniMACs system. Aliquots of all cell fractions were sent for flow cytometry, gram stain and culture. Cell fractions remained at 4°C overnight. Prior to release from the cell processing facility, an aliquot from each cell fraction was assessed for viability. Cells were counted and  $0.5 \times 10^6$  CD34+ cells and  $1.0 \times 10^6$  CD34 negative or BMMC loaded into vials numbered 1-4. All cell fractions were diluted in 1cc of Plasmalyte. An additional vial was loaded with 1cc of Plasmalyte for control injection sites.

## Supplemental Figure 2: Safety Data



PRBC, P = 0.66; FFP, P > 0.9; PLT, P = 0.25 all by t test