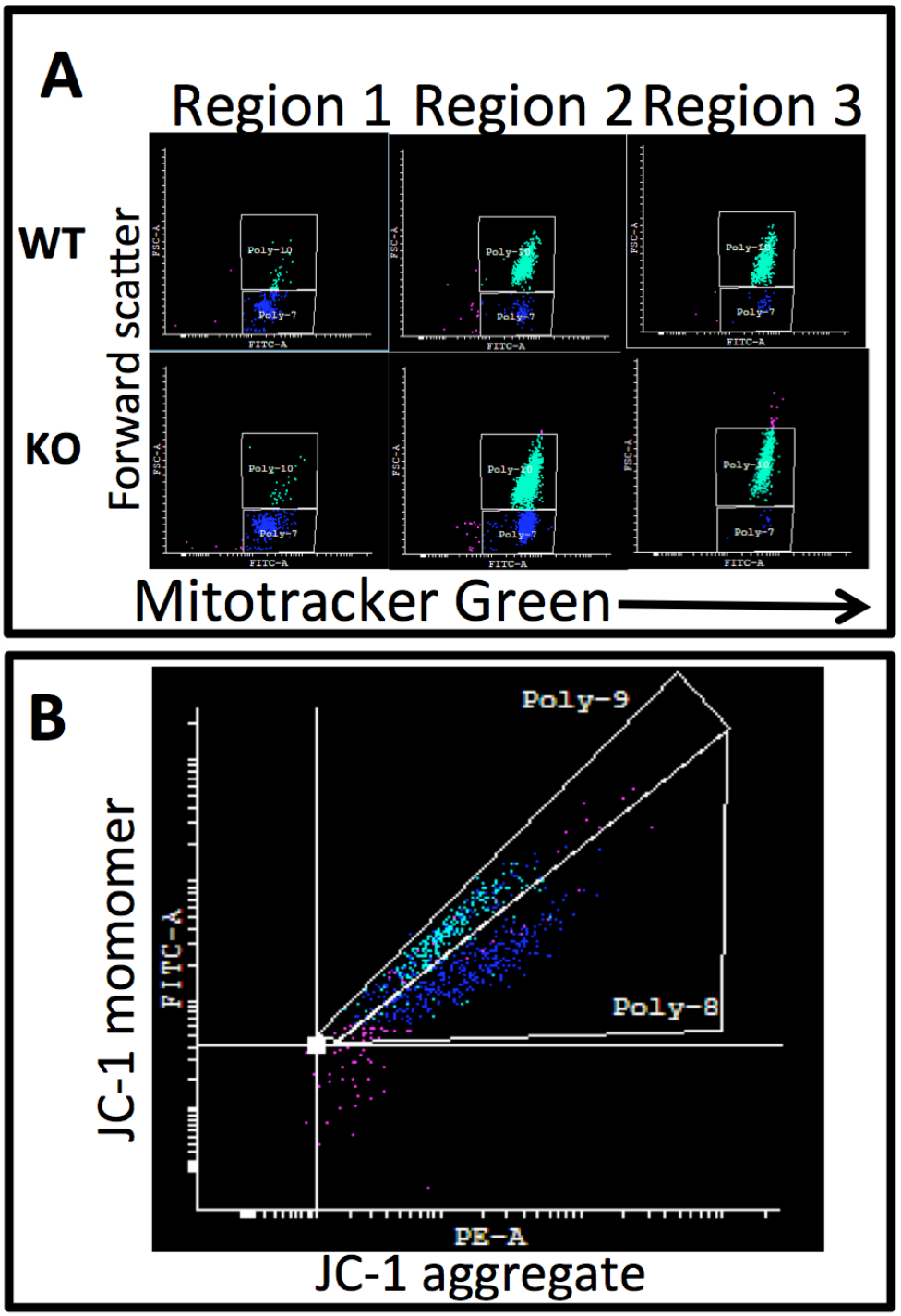
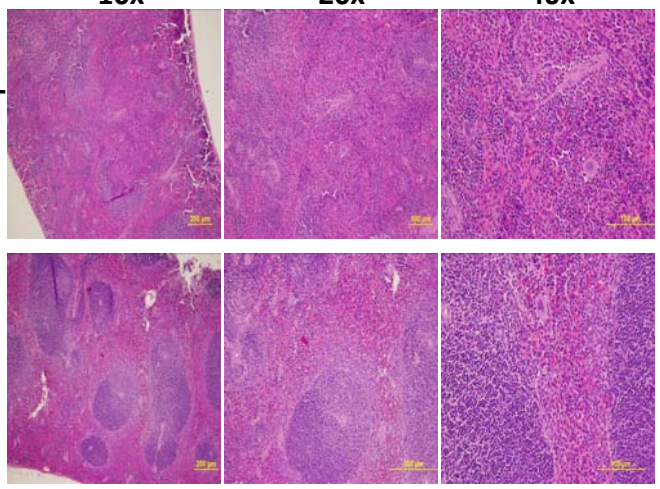
Supplemental Figure 1. Example of gating techniques used to analyze average mitochondrial mass as a function of size or mitochondrial membrane potential per cell in gated LSK cells from WT or STAT3-/- cells. Flow cytometric dot-plots of size (forward scatter) and Mitotracker Green FM staining are shown in panel A. Ploygram-10 gate are larger cells and polygram-7 gate are smaller cells. Panel B is an example dot-plot showing relative JC-1 staining as function of JC-1 monomer and JC-1 aggregate in gated LSK cells. Polygram-9 gate are cells with a greater monomer/aggregate ratio and are cells with lower $\Delta\Psi_m$. Polygram-8 are cells with lower monomer/aggregate ratio and are cells with a higher $\Delta\Psi_m$.

Supplemental Figure 2. STAT3-/- mice have altered spleen and bone marrow morphology and increased myeloproliferation. Panel A shows photomicrographs of splenic sections from WT and STAT3-/- mice stained with May-Grünwald stain at different magnifications (10X, 20X, 40X) and represents similar observations from more than 10 STAT3-/-/WT mouse pairs. Panel B shows manual white blood cell counts taken from tail clipping blood from animals from one litter of four mice at 2, 3, and 6 weeks of age. L/M=lymphoid cell count/myeloid cell count. The same technician stained and counted all blood smears and the genotypes of the animals were not revealed until the end of the experiment. L=lymphoid cell %; M=myeloid cell %. Panel C shows photomicrographs of bone marrow cytospin preparations stained with Wright-Geimsa and represents similar results from four STAT3-/-/WT pairs.

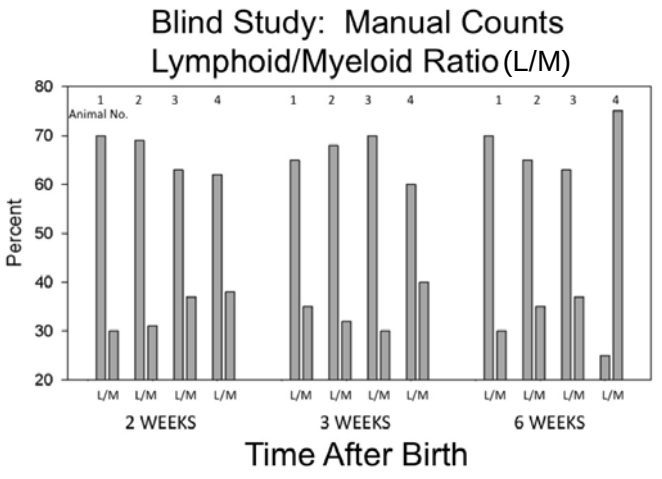
Supplemental Figure 1



A



B



4 animals in one litter; #4 was later determined to be KO

C