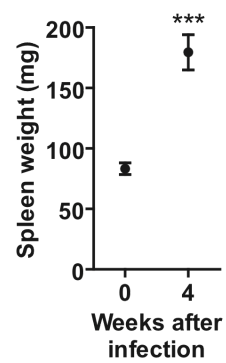
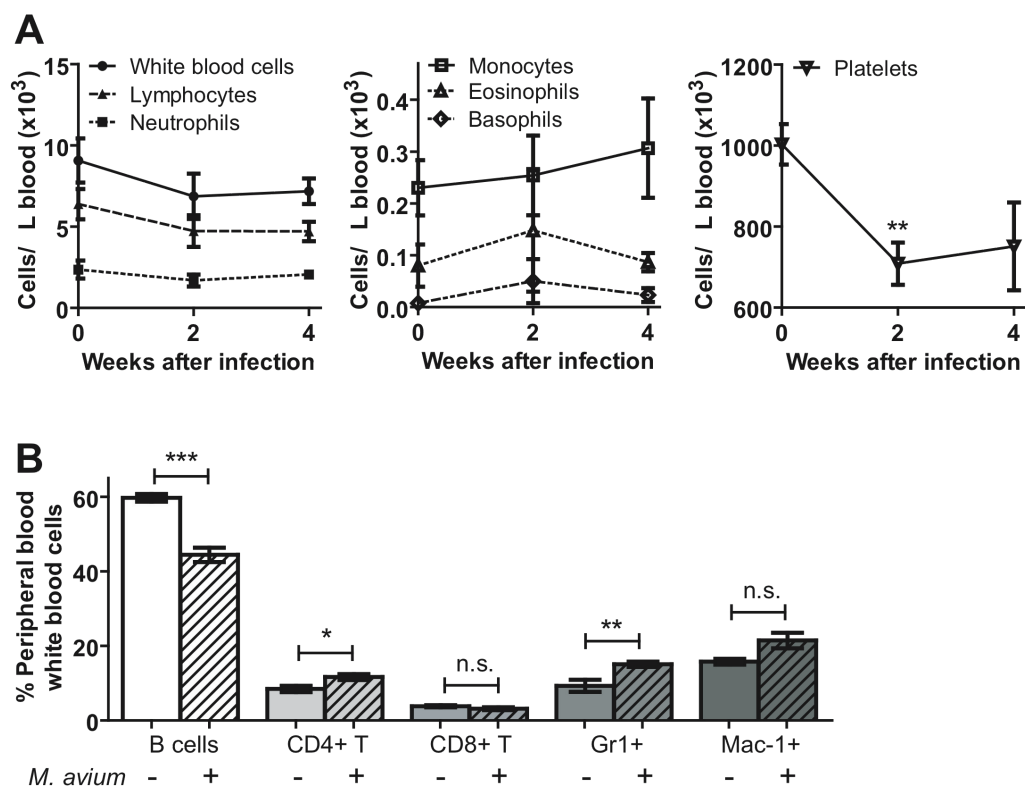


## SUPPLEMENTARY INFORMATION



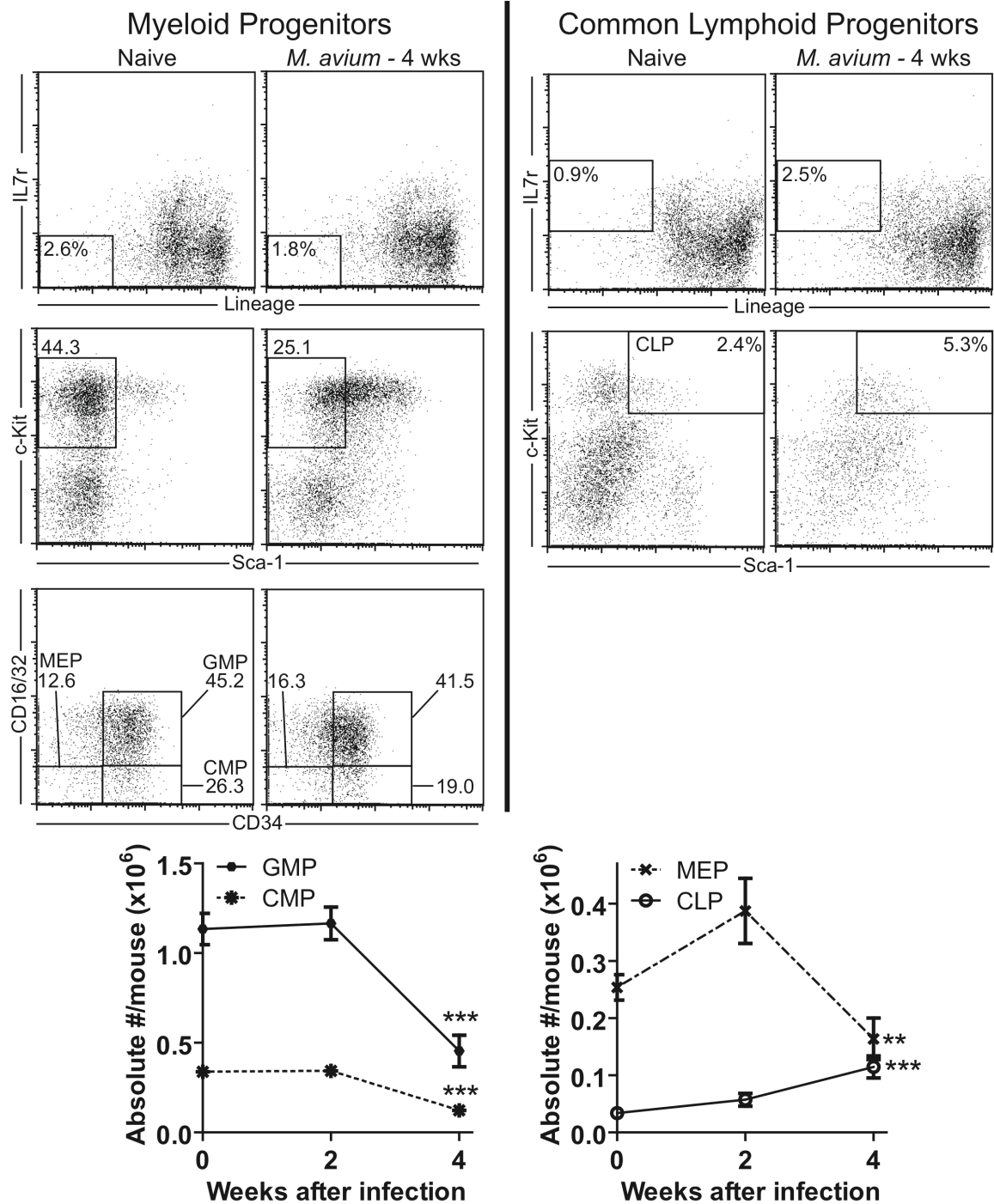
**Supplementary Figure 1.** Spleen weights increase with infection.

Spleen weight was determined 4 weeks after *M. avium* infection of mice. n=4 to 6.



**Supplementary Figure 2.** Peripheral blood homeostasis is maintained during *M. avium* infection.

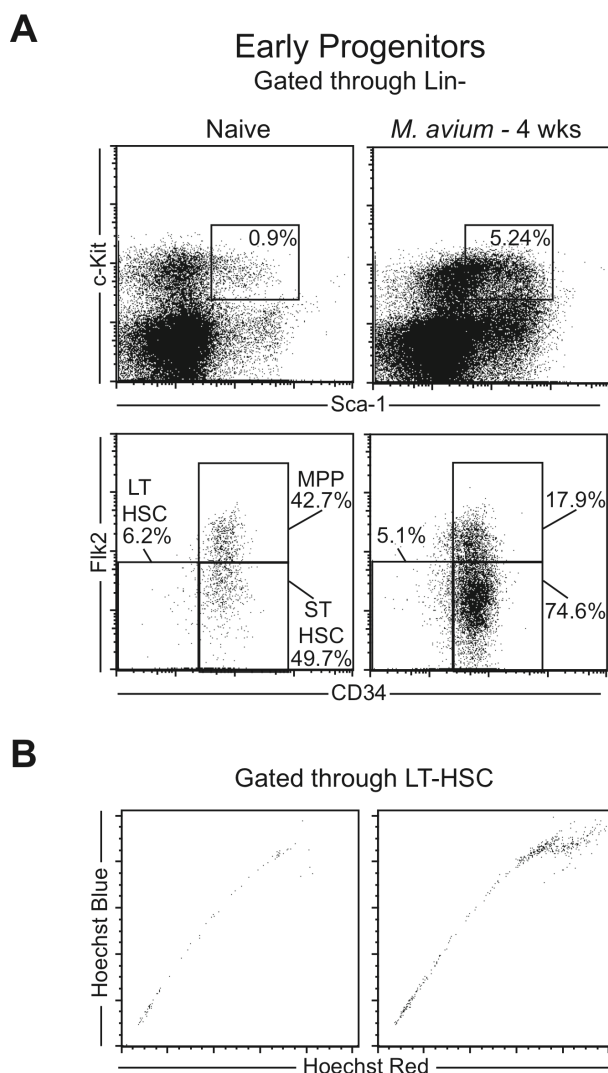
(A) Peripheral blood composition, with the exception of platelets, remains stable over 4 weeks of *M. avium* infection.  $n=3-8$ . (B) The relative percentage of B cells declines 4 weeks postinfection whereas percentages of CD4+ T-cells and granulocytes increase in mice infected with *M. avium*.  $n=4$  or 5.



**Supplementary Figure 3.** Infection stimulates changes in myeloid and lymphoid progenitor compartments.

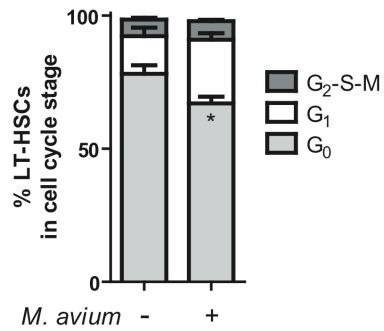
Whole bone marrow was isolated from naïve and *M. avium*-infected mice 4 weeks postinfection. Progenitor populations shown were previously gated as live cells. For

myeloid progenitor gating, GMPs (granulocyte-macrophage progenitors) are  $\text{Il7r}\alpha^{-}$ ,  $\text{Lin}^{-}$ ,  $\text{c-kit}^{+}$ ,  $\text{Sca-1}^{-}$ ,  $\text{CD16/32}^{+}$ , and  $\text{CD34}^{+}$ , CMPs (common myeloid progenitors) are  $\text{Il7r}\alpha^{-}$ ,  $\text{Lin}^{-}$ ,  $\text{c-kit}^{+}$ ,  $\text{Sca-1}^{-}$ ,  $\text{CD16/32}^{-}$ , and  $\text{CD34}^{+}$ , and MEPs (macrophage-erythroid progenitors) are  $\text{Il7r}\alpha^{-}$ ,  $\text{Lin}^{-}$ ,  $\text{c-kit}^{+}$ ,  $\text{Sca-1}^{-}$ ,  $\text{CD16/32}^{-}$ , and  $\text{CD34}^{-}$ . CLPs (common lymphoid progenitors) are  $\text{Il7r}\alpha^{+}$ ,  $\text{Lin}^{-}$ ,  $\text{c-kit}^{+}$ , and  $\text{Sca-1}^{+}$ . Absolute numbers of progenitor populations are shown below.  $n=3-7$ .



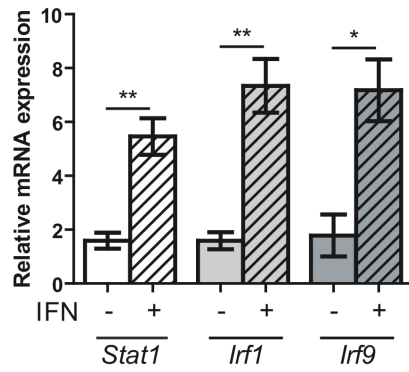
**Supplementary Figure 4.** Infection stimulates expansion of early progenitor compartments.

(A) Whole bone marrow was isolated from naïve and *M. avium*-infected mice 4 weeks postinfection. Progenitor populations shown were previously gated as Lin<sup>-</sup> live cells. MPPs (multipotent progenitors) are Lin<sup>-</sup>, c-kit<sup>+</sup> Sca-1<sup>+</sup>, Flk2<sup>+</sup>, and CD34<sup>+</sup>. ST-HSCs (short-term HSCs) are Lin<sup>-</sup>, c-kit<sup>+</sup>, Sca-1<sup>+</sup>, Flk2<sup>-</sup>, and CD34<sup>+</sup>. LT-HSCs are Lin<sup>-</sup>, c-kit<sup>+</sup>, Sca-1<sup>+</sup>, Flk2<sup>-</sup>, and CD34<sup>-</sup>. (B) LT-HSCs were gated to Hoechst Blue and Red to view the Side Population. n=3-7.



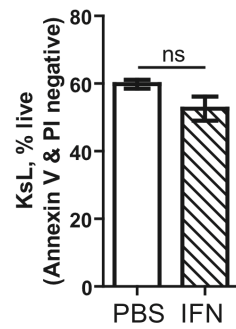
**Supplementary Figure 5.** *M. avium* infection stimulates increased HSC cycling.

Hoechst and Pylonin Y staining was used to determine the cell cycle status of LT-HSCs (SP<sup>KLS</sup>) isolated from uninfected and *M. avium*-infected WT mice. n=3-4.



**Supplementary Figure 6.** Canonical IFN pathway genes are stimulated in HSCs with IFN $\gamma$  exposure.

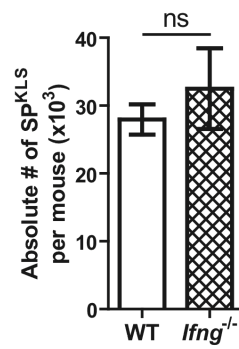
Real-time RT-PCR was used to determine relative expression of *Stat1*, *Irf1*, and *Irf9* mRNA in HSCs (SP<sup>KLS</sup>) with or without IFN $\gamma$  treatment. n=2-3 independent samples.



**Supplementary Figure 7.** IFN $\gamma$  does not cause increased cell death of hematopoietic progenitors.

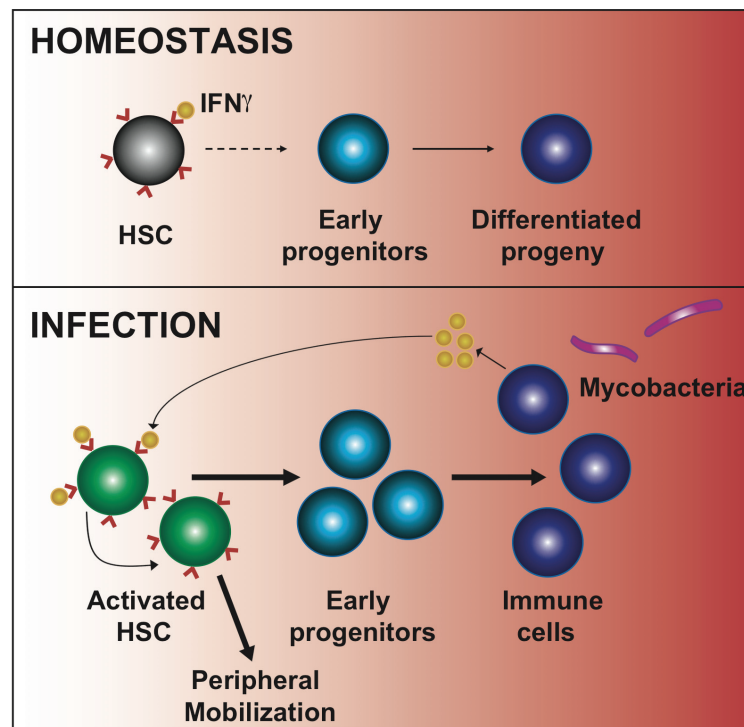
The percentage of live KSL cells after 6 hours incubation with PBS or IFN $\gamma$  was determined using Annexin V and propidium iodide staining. n=5.





**Supplementary Figure 8.** The absolute number of HSCs is unchanged in *Ifng*-deficient mice.

Absolute numbers of SP<sup>KLS</sup> from wild-type and *Ifng*<sup>-/-</sup> mice were determined. n=3-4, data representative of two independent experiments.



**Supplementary Figure 9.** Model for  $IFN\gamma$ -mediated regulation of hematopoietic stem cells.

Infection triggers HSC proliferation and mobilization via interferon signaling. Under homeostatic conditions, most HSCs are dormant and generate differentiated progeny at a low rate. Basal levels of  $IFN\gamma$  may contribute to HSC cycling. During infection,  $IFN\gamma$  is generated by macrophages, NK cells, and lymphocytes that sense pathogens such as mycobacteria. After circulation through the bloodstream,  $IFN\gamma$  can activate HSCs in the bone marrow, thereby promoting proliferation and mobilization to replenish immune cell populations.