## Supplemental Figure 1



Supplemental Figure 1. Arginase expression and expanded statistics in lung myeloid cells following *M. bovis* BCG infection. (A) Male and female C57BL/6 mice were infected with *M. bovis* BCG via intranasal inoculation and cells from lung digests were MACS sorted and analyzed for gene expression as in Figure 2 (N≥9, 3 three experiments combined). Data are the individual gene expression values normalized to Gapdh (Male = blue, Female = pink), with the mean represented by black symbols. Error bars, SD. \*p<0.05, \*\*\*p<0.001 comparing the indicated population to CD11c<sup>neg</sup>, CD11b<sup>neg</sup> cells by 2-way ANOVA; \*\*\*p<0.001 comparing CD11c<sup>+</sup> to CD11c<sup>neg</sup>, CD11b<sup>+</sup> cells by 2-way ANOVA. (B) Cells from digested lungs were FACS sorted and analyzed for gene expression as in Figure 2 (N=4, 1 experiment). Data are the individual gene expression values normalized to Gapdh (each dot represents pooled lung homogenates from 2 mice; Male = blue, Female = pink), with the mean represented by black symbols. Error bars, SD. \*\*\*p<0.001 comparing gene expression from CD11c<sup>neg</sup>, CD11b<sup>+</sup> cells to each other population by 2-way ANOVA. (C and D) Expanded p values by 2-way ANOVA from the MACS (C) and FACS (D) sorted lung myeloid cells.

## Supplemental Figure 2



Supplemental Figure 2. Mycobacterial enumeration in *Ass1*<sup>flox/flox</sup>, *Ass1*<sup>flox/flox</sup>;Tie2-cre , and *Ass1*<sup>flox/flox</sup>;*Lyz2*<sup>cre/cre</sup> mice. (A) Mice (C57BL/6 background) used for *M. bovis* BCG infection studies. Male and female mice were infected with *M. bovis* BCG via intranasal inoculation. (B, C) Eight weeks post-infection, mice were euthanized and CFUs were determined from the homogenized lung (B) and spleen (C). Data are presented as a scatter plot of individual CFU values with the line representing the mean. Error bars, SD. Data are combined from at least two experiments (*Ass1*<sup>flox/flox</sup>;Tie2cre) or are from one experiment (*Ass1*<sup>flox/flox</sup>;*Lyz2*<sup>cre/cre</sup>). \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001 by Student's t test.

## Supplemental Figure 3



Supplemental Figure 3. Histopathology of *M. bovis* BCG-infected mice deficient in L-ARG synthesis. Mice were infected with *M. bovis* BCG as in Figure 3 and Supplemental Figure 1. Eight weeks post-infection, mice were euthanized, and lungs were prepared for histological analysis by H&E stain. Data are three representative lungs comparing  $Asf^{lox/flox}$ :Tie2-cre to  $Asf^{lox/flox}$  control mice (A),  $Asf^{lox/flox};Lyz2^{cre/cre}$  to  $Lyz2^{cre/cre}$  control mice (B),  $Assf^{lox/flox}$ :Tie2-cre to  $Assf^{flox/flox}$  control mice (C), or  $Assf^{flox/flox};Lyz2^{cre/cre}$  to  $Assf^{flox/flox}$  control mice (D). Data are from one experiment (A, C, D), or are representative of three experiments (B). Scale: line = 5 mm.