Figure S1. IL-6 and BMDM enhance antimicrobial and anti-inflammatory ability of mice with pneumococcal pneumosepsis. (A-D) Pneumococcal load of BALF (n=4-6/group), lung (n=4-6/group), spleen (n=3-6/group) and liver (n=4-6/group) of mice when treated with WT BMDM during pneumococcal pneumosepsis. (E-G) H&E staining of lung tissues sections (n=5/group), histologic score (n=5/group) and total protein in BALF (n=4-5/group) of mice when treated with WT BMDM during pneumococcal pneumosepsis. Black arrow, inflammatory cell infiltration; blue arrow, epithelial cell shedding; red arrow, bleeding. (H) Pneumococcal load of lung (n=5/group) of mice when treated with *IL-6*^{-/-} BMDM during pneumococcal pneumosepsis.

Figure S2. BALF cells during pneumococcal pneumosepsis. Total numbers of inflammatory cells, macrophages and neutrophils in BALF from 1 to 3 dpi during pneumococcal pneumosepsis (n=6-11/group).

Figure S3. CXCL-2 and CXCL-5 levels in infected mice. (A) CXCL-2/MIP-2 and (B) CXCL-5 in lung homogenates of *S. pneumoniae* infected IL-6^{-/-} and WT mice 72 hpi as measured by ELISA (n=4-6/group).

Figure S4. IL-6 regulates *S. pneumoniae*-induced lung cell death. (A-B) PI⁺ cells (n=4-5/group) and early apoptotic cells (n=11/group) in BALF from mice during *S. pn*eumoniae infection at the indicated times. (C-D) Lung cell death in mice during *S. pn*eumoniae infection assessed by *in situ* cell death detection kit and immunohistochemical staining (cleaved caspase-3) (n=3/ group).

Figure S5. IL-6 only minimally affects mRNA levels of pyroptosis-related

proteins. In vivo mRNA levels of the following proteins from lungs of S.

pneumoniae- infected IL-6^{-/-} and WT mice. (A) Caspase-3 (n=3/group),

Gsdme (n=3/group) and $II1\beta$ (n=3-6/group) and (B) Caspase-1 (n=3-5/group),

Gsdmd (n=3- 5/group) and *ll18* (n=3/group) at the indicated times.





4 / 7





