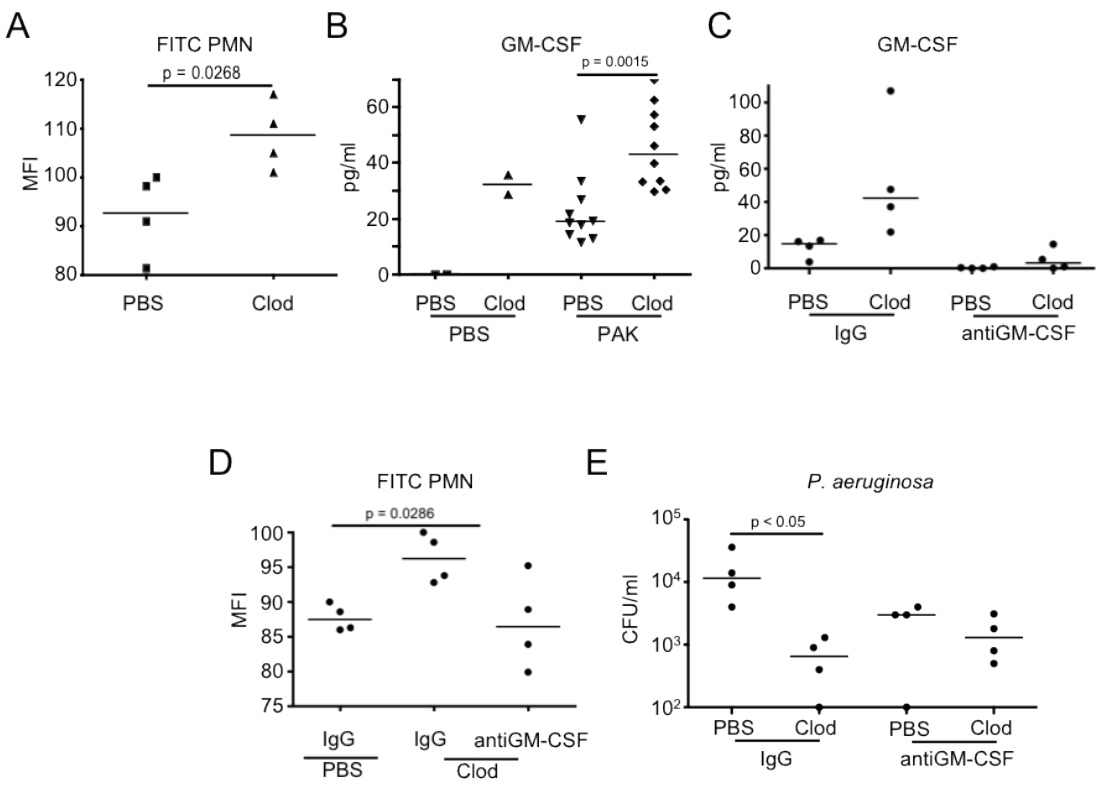

Figure S1: GM-CSF increases phagocytosis by PMNs.

(A) Phagocytosis of GFP-PAK by PMNs in vivo measured by FACs. (B) GM-CSF levels in BAL. (C) Depletion of GM-CSF via instillation of neutralizing antibody. (D) Phagocytosis of GFP-PAK in the presence of neutralizing antibody. (E) PAK in BAL with and without AM depletion and GM-CSF neutralization.

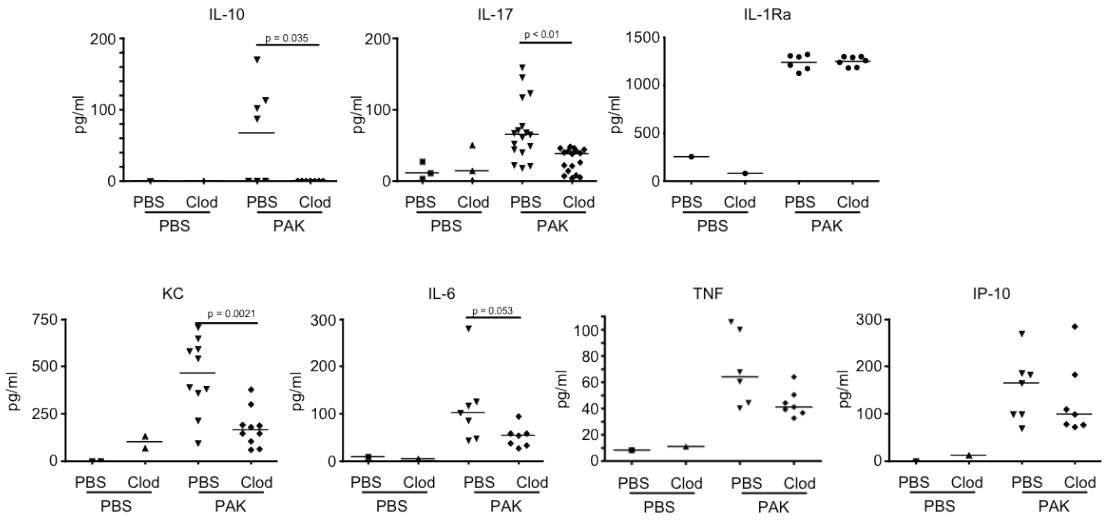

Figure S2: Cytokine expression in BAL is altered by macrophage depletion.

Cytokine expression was assayed by Multiplex ELISA (Invitrogen) and results confirmed with samples from subsequent experiments by standard ELISA (eBioscienses and R&D Biosystems).

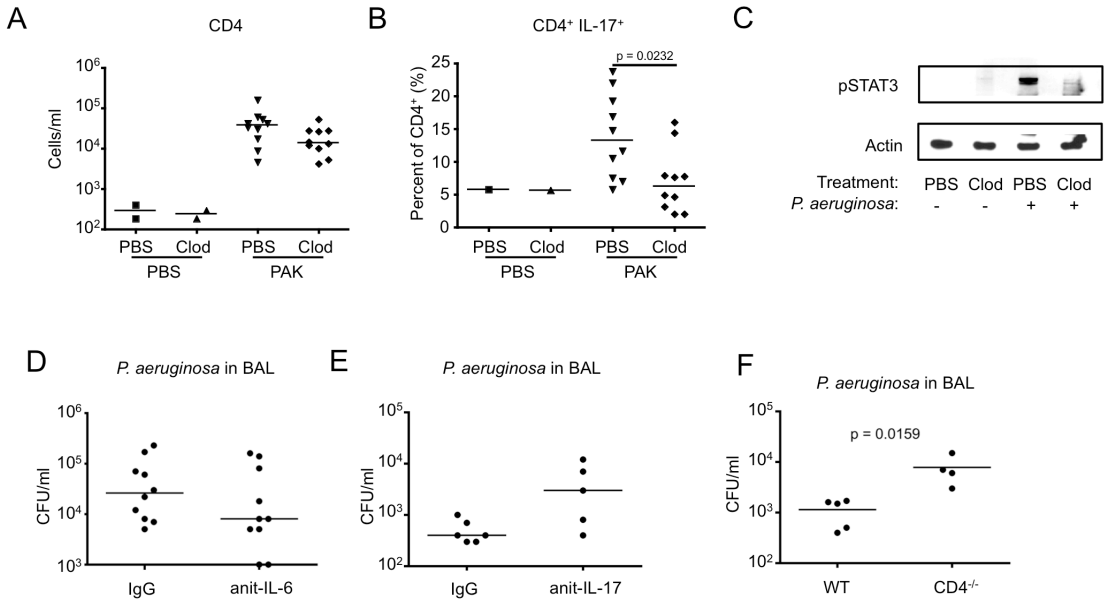

Figure S3: Role of IL-17 signaling axis in clearance of *P. aeruginosa*.

(A) Numbers of $CD4^+$ $CD11c^-$ cells in BAL of macrophage depleted and control mice. (B) Numbers of $CD4^+$ $CD11c^-IL\text{-}17^+$ cells in BAL of macrophage depleted and control mice. (C) Western analysis of STAT3 phosphorylation. (D) Numbers of bacteria in the BAL of IL-6 or (E) IL-17 depleted mice. (F) Numbers of bacteria in the BAL of WT or CD4-/- mice. Data representative of at least 2 independent experiments.

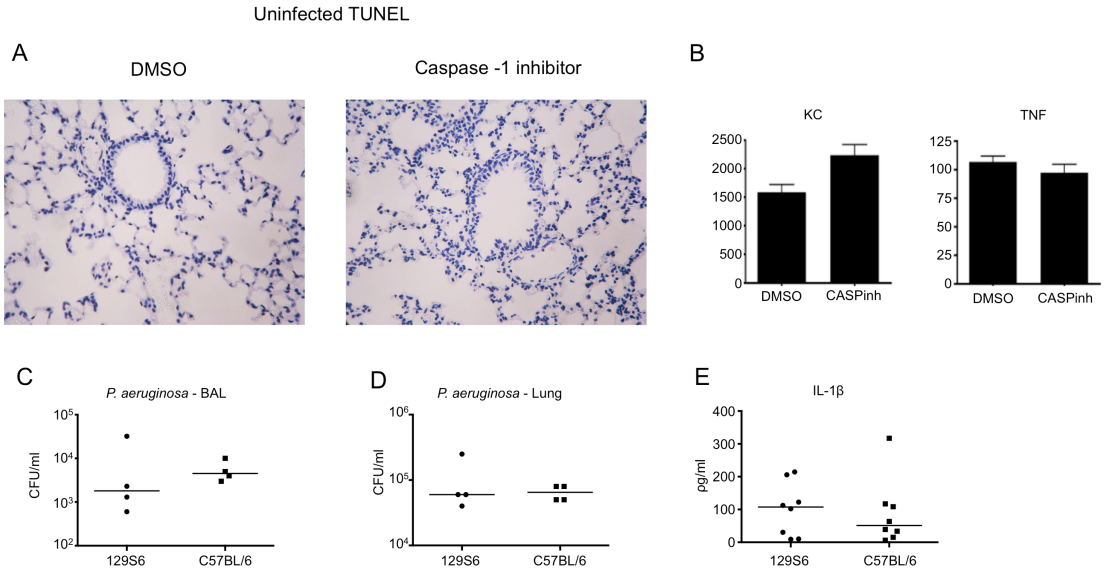

Figure S4: (A) Caspase-1 inhibition does not cause lung damage. Uninfected lungs treated with caspase-1 inhibitor or DMSO control were assayed for tissue damage by TUNEL staining. (B) Cytokine expression assayed by ELISA in BAL of infected mice treated with DMSO or caspase-1 inhibitor. (C) Numbers of bacteria in BAL of 129S6 and C57BL/6 mice. (D) Numbers of bacteria in lung of 129S6 and C57BL/6 mice. (E) IL-1β in BAL of 129S6 and C57BL/6 mice.

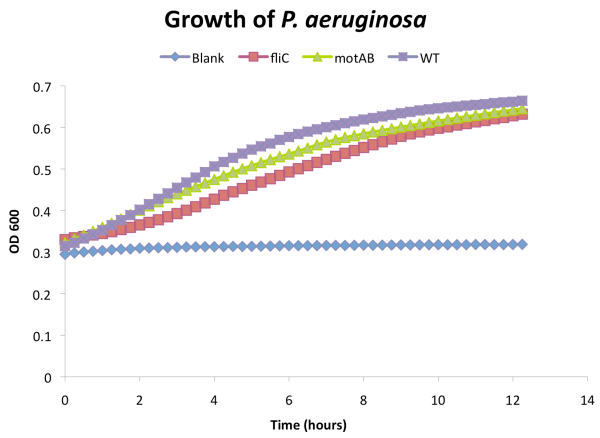

Figure S5: *P. aeruginosa* growth curves.

Wild type, *fliC*, and *motAB* PAK growth.