Supplemental Figure 1 – Impact of Th17 cytokine deletion on S. aureus pneumonia. C57BL/6 (WT), IL-17R -/-, or IL-22 -/- mice were challenged with 10^8 cfu S. aureus for 24 (A,D) or 48 (B,C,E,F) hours. A,D - Data represent bacterial colony counts in the cranial lobe of the right lung (n=6,4 respectively). B,E – lavage cell differential cell counts (n=4). C,F – Th17 induced cytokines in lung homogenate (n=4). All experiments were repeated once, representative data are presented. * p < 0.05, ** p < 0.10 versus WT
Supplemental Figure 2 - IL-17 is required for efficient clearance of S. aureus pneumonia. C57BL/6 (WT), IL-17A -/-, or IL-17F -/- mice were challenged with $10^8$ cfu S. aureus for 48 hours (n=4), all experiments were repeated once, representative data are presented. Data reflect bacterial colony counts in the cranial lobe of the right lung. * p < 0.05 versus WT
Supplemental Figure 3 - S. aureus induced TNFα production is unaltered in IL-17R -/- or IL-22 -/- mice. C57BL/6 (WT), IL-17R -/-, or IL-22 -/- mice were challenged with $10^8$ cfu S. aureus for 24 hours (n=6 IL-17R -/-, 4 IL-22 -/-), all experiments were repeated once, representative data are presented. Data depict TNFα protein levels in whole lung homogenate.
Supplemental Figure 4 – Influenza A infection inhibits CD4+ and γδ T cell expression of IL-17A. C57BL/6 mice were infected with 100 pfu of Influenza A PR/8/34 or vehicle for 6 days, mice were then challenged with 10⁸ cfu S. aureus for 24 hours (n=4), all experiments were repeated once, representative data are presented. A – flow cytometry plot for T cell surface marker staining and IL-17A intracellular staining. Cells in the upper right quadrant are double positive cells. B – quantification of the percent double positive cells. ** p < 0.10 versus SA
B

**CD4^+ IL-17^+**

![Bar graph showing % Positive Cells for CD4^+ IL-17^+ cells across FLU, SA, and FLU/SA groups.]

**γδT^+ IL-17^+**

![Bar graph showing % Positive Cells for γδT^+ IL-17^+ cells across FLU, SA, and FLU/SA groups.]

- **FLU**
- **SA**
- **FLU/SA**

**% Positive Cells**

- FLU: 0.06
- SA: 0.07
- FLU/SA: 0.02

- FLU: 0.12
- SA: 0.11
- FLU/SA: 0.05

*Significance indicated by **.***
Supplemental Figure 5 – Attenuation of type I or II interferon signaling inhibits Influenza, S. aureus induced inflammation. C57BL/6, IFNαR -/-, or IFNγ -/- mice mice were infected with 100 pfu of Influenza A PR/8/34 or vehicle for 6 days, mice were then challenged with 10⁸ cfu S. aureus for 24 hours (n=4), all experiments were repeated once, representative data are presented. Data represent total lavage cell counts. * p < 0.05 versus WT FLU/SA, ** p < 0.05 versus WT SA