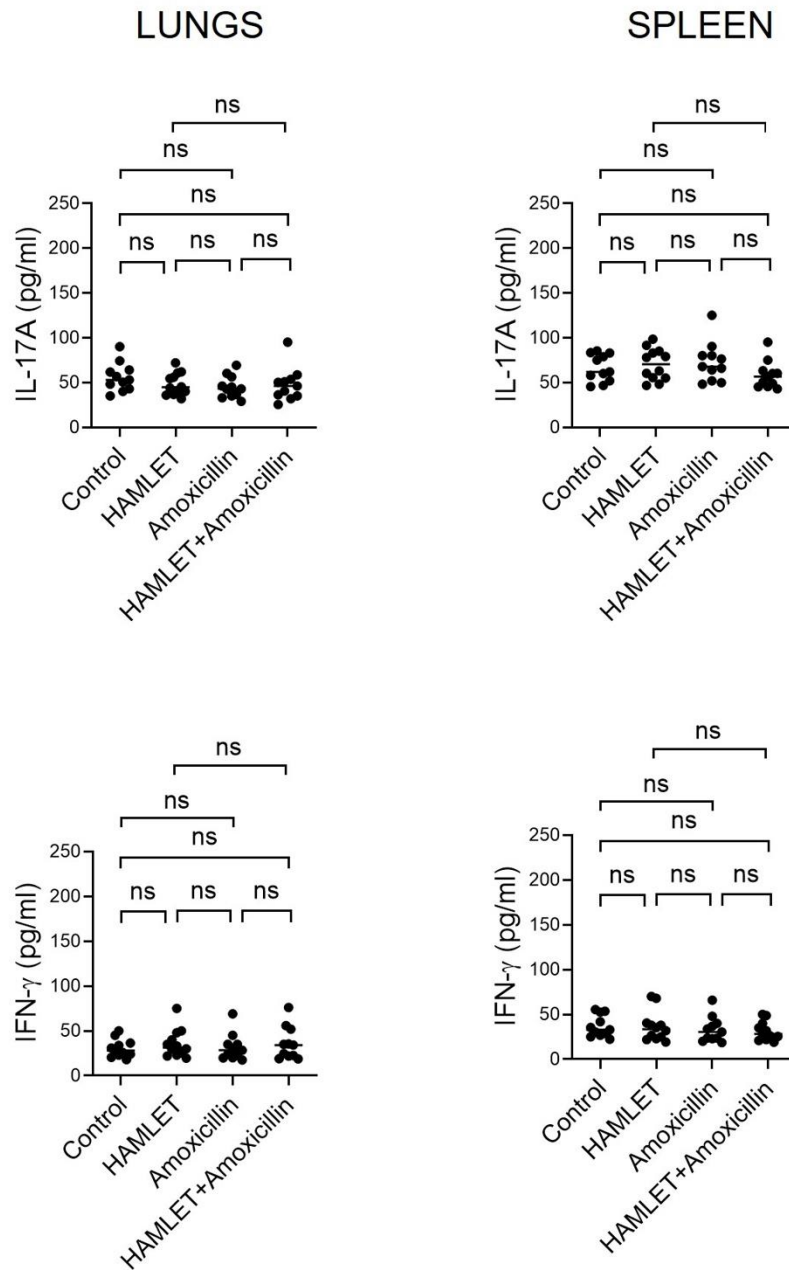
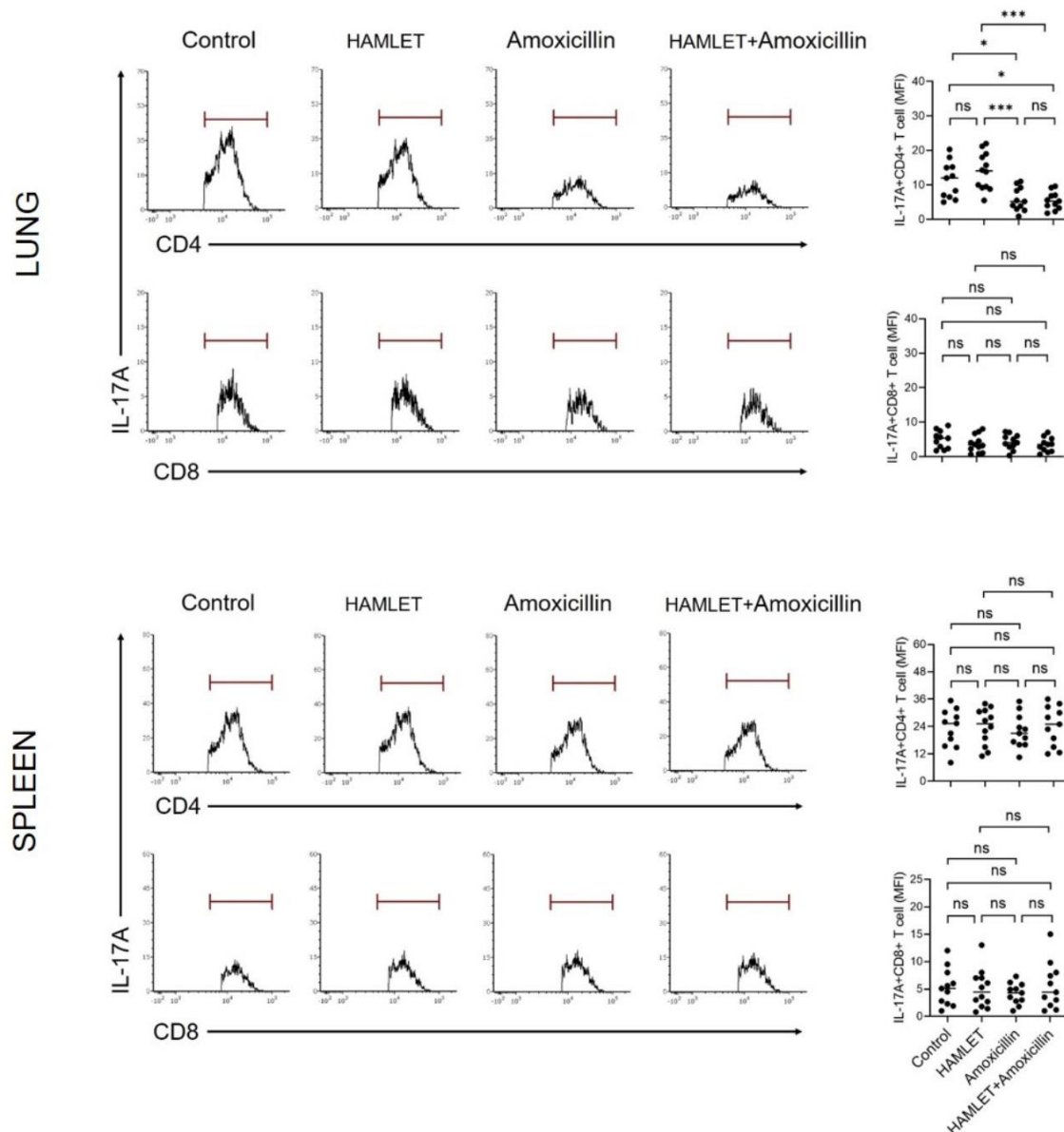


Supplementary Figure S1. Gating strategy for flow cytometric analysis. Lung cells isolated from the infant mice treated with amoxicillin were stimulated with UV-killed *S. pneumoniae* TIGR4, and stained with antibodies specific for CD3, CD4, CD8, IL-17A markers, and analyzed by flow cytometry. The cells were first plotted against FSC-H and FSCA to exclude the doublet cells and then plotted against SSC-A and FSC-A. Analysis was performed on gated CD3+ (T cells) lung cells based on a gate that mainly contains lymphocytes in the SSC-A versus FSC-A plot. CD3+ cells were displayed into CD4+ and CD8+ T cells, which were further shown to express IL-17A. Representative flow cytometric dot plot images are given.



Supplementary Figure S2. IL-17A and IFN- γ production by lung cells and splenocytes without pneumococcal stimulation *in vitro*. Lung cells and splenocytes from the infant mice treated with amoxicillin, HAMLET, amoxicillin plus HAMLET or PBS (control) were cultured for 72 hours without stimulation with the UV-killed *Streptococcus pneumoniae*, and Th17 (IL-17A) and Th1 (IFN- γ) cytokine levels in the culture supernatants were measured by ELISA. Each experimental group had 11-12 mice. The data represent the mean \pm SD of two independent experiments. The dots represent the data for each mouse, and the horizontal bars are the mean values for the groups. ns = non-significant. One-way ANOVA and Tukey post hoc test.



Supplementary Figure S3. Production of IL-17A by CD4+ and CD8+ T cell subsets following stimulation with killed *S. pneumoniae*. The production of IL-17A by CD4+ and CD8+ T cells in the lungs and spleen was examined using flow cytometric intracellular cytokine analysis. Images of flow cytometric histograms (left) and a summary of the mean fluorescence intensity (MFI) of IL-17A expression in CD4+ and CD8+ T cells. CD3+ cells were gated and presented as CD3+CD4+ and CD3+CD8+ T cells as described in Supplementary Figure 1. There were 11–12 infant mice in each experimental group. The information on the right graph is presented as the mean \pm SD and is a summary of the two separate experiments. The horizontal bars show the mean values for the groups, and the dots show data from each individual mouse. * $P < 0.05$; *** $P < 0.001$. ns = non-significant. One-way ANOVA and Tukey post hoc test.