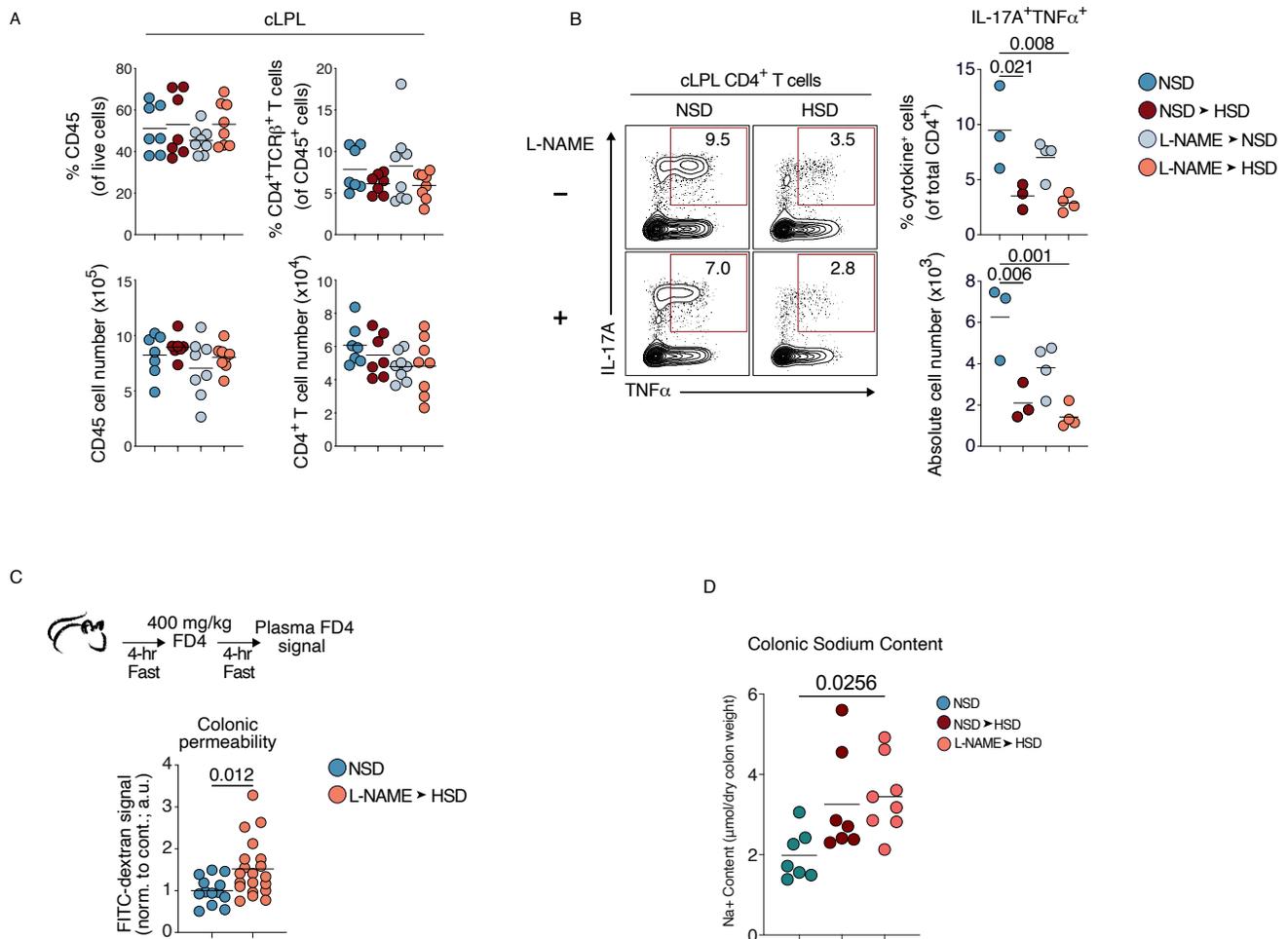
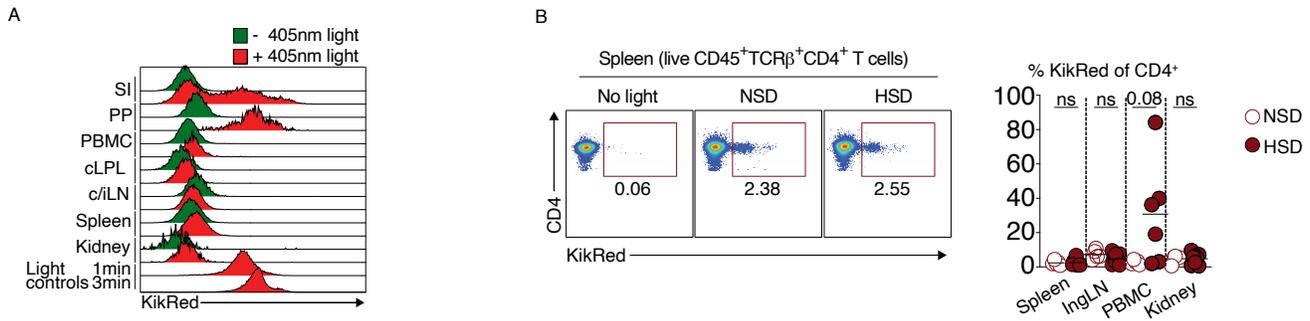


**Figure S1. SFB status, flow cytometry gating scheme and immune compartment response to experimental salt-sensitive hypertension.** A) Segmented filamentous bacteria (SFB) and *Helicobacter hepaticus* (Hh) determination in 8-12-week-old C57BL6/J mice house at UAB since transfer from the Jackson Laboratory at 3-weeks old. B) Gating scheme for single cell analysis of colonic lamina propria lymphocytes, C) Frequency and absolute count of total immune cells, by CD45, and total CD4+ T cells in HSD-fed salt-sensitive and respective control mice. D) Representative flow plots evaluating IL-17A and TNF $\alpha$  expression among cLPL CD4+ T cells and analysis for indicated experimental groups. E) Representative flow plots evaluating cLPL CD4+ T cells ROR $\gamma$ t and Foxp3 frequency and absolute cell numbers among experimental mice. F) Representative flow plots evaluating cLPL CD4+ T cells ROR $\gamma$ t and Tbet frequency and absolute cell numbers among experimental mice. G) Gating scheme outlining specificity of staining and identification to evaluate ILC3 presence in the colonic lamina propria with absolute count of ILC3s among experimental mice.



**Figure S2. Stable bulk immune compartments despite increased intestinal permeability associated with disrupted effector CD4<sup>+</sup> T cells in salt-sensitive mice.** A) Analysis of frequency and number of colonic CD45<sup>+</sup> (left) and CD4<sup>+</sup> T (right) cells in mice fed NSD, HSD, L-NAME/NSD, and L-NAME/HSD. B) Analysis of frequency (top) and number (bottom) pro-inflammatory and pathogenic colonic TNFα<sup>+</sup> Th17 cells in mice fed NSD, HSD, L-NAME/NSD, and L-NAME/HSD. C) Mice were fasted for 4 hours before being given an oral gavage of FITC-Dextran at 400mg/kg. Four hours post oral gavage, blood was collected via retro-orbital and analyzed for FITC-dextran positive signal to determine colonic permeability in mice fed NSD and L-NAME/HSD. D) Colons from NSD, HSD, and L-NAME/HSD fed mice were dried and ashed for analysis of sodium concentration in μmol/dry colon weight. ns, not significant ( $p > 0.05$ ); \* $p \leq 0.05$ ; \*\* $p \leq 0.01$ ; \*\*\* $p \leq 0.001$ ; \*\*\*\* $p \leq 0.0001$ ; Two-way ANOVA (A-B), Unpaired T Test (C), One-way ANOVA (D).





**Figure S4. Intestinal Kikume-GreenRed photoconversion is specific to the intestine and nonsignificant changes in CD4<sup>+</sup> migration to non-mucosal tissues with HSD.** A) Representative histogram of KikRed among select tissues from in KikGR mice with (+) and without (-) intestinal 405 nm illumination and respective light controls with splenocytes. SI, small intestine; PP, Peyer's patches; PBMC, peripheral blood mononuclear cells; c/iLN, pooled caudal-iliac lymph nodes. B) Representative KikRed dot plots from mice fed a NSD or HSD and frequency analysis of KikRed among CD4<sup>+</sup> T cells isolated from blood and solid tissues (spleen, nsd n=5, hsd=8; inguinal LN (IngLN), nsd=5, hsd=8; PBMC, nsd=5, hsd=6; kidneys, nsd=5, hsd=8). Within representative gating scheme, values indicate frequency of KikRed+ within parent population. Where indicated, a negative control ('no light') was utilized to demonstrate specificity for flow cytometric analysis of KikRed. ns, not significant ( $p > 0.05$ ); \* $p \leq 0.05$ ; \*\* $p \leq 0.01$ ; \*\*\* $p \leq 0.001$ ; \*\*\*\* $p \leq 0.0001$ ; Two-tailed students t test for spleen, IngLN, and kidney analyses and non-parametric Mann-Whitney test for PBMC analysis.