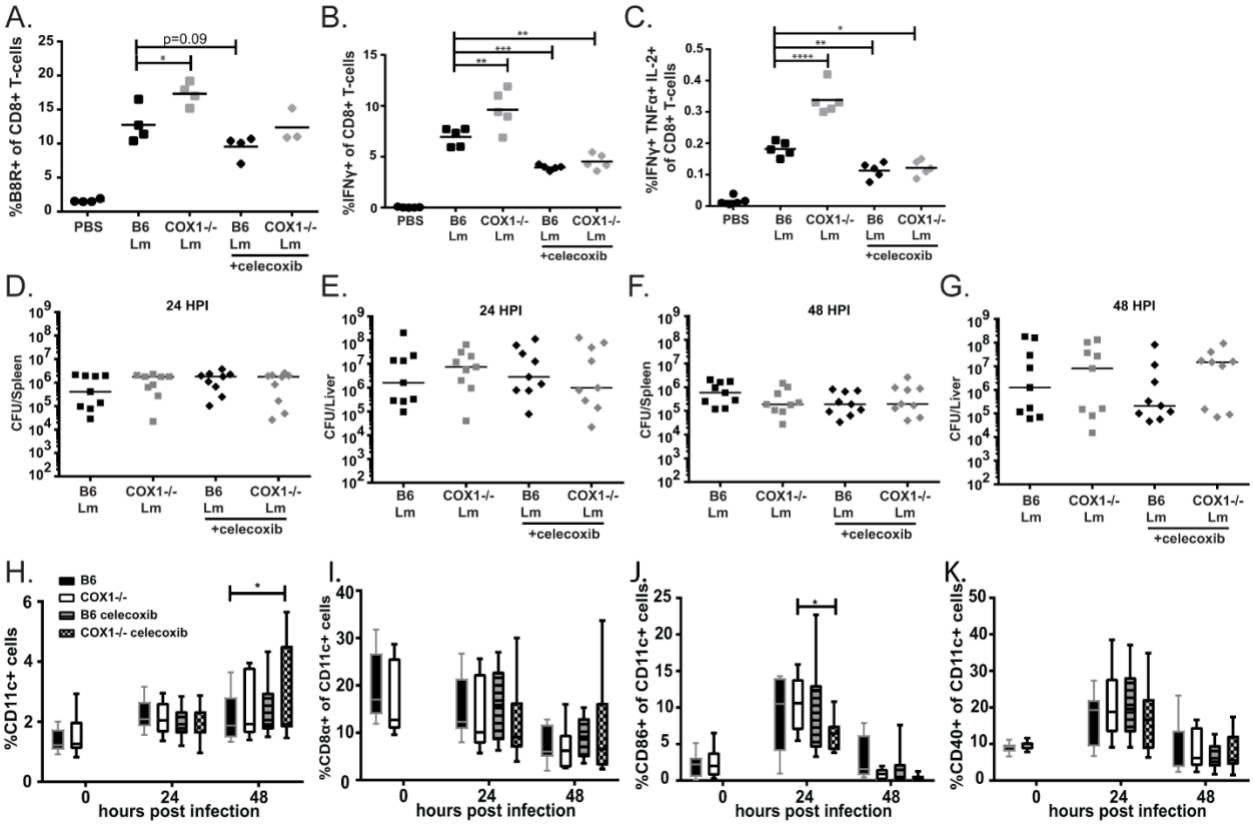
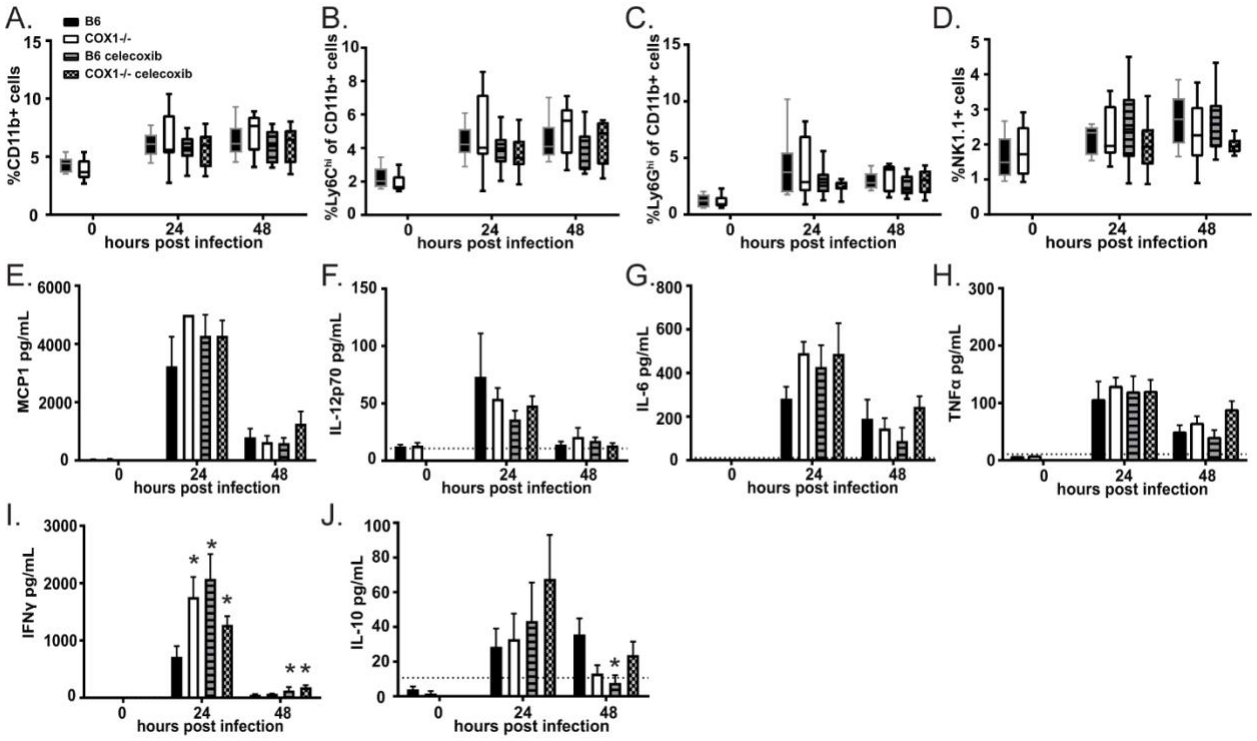
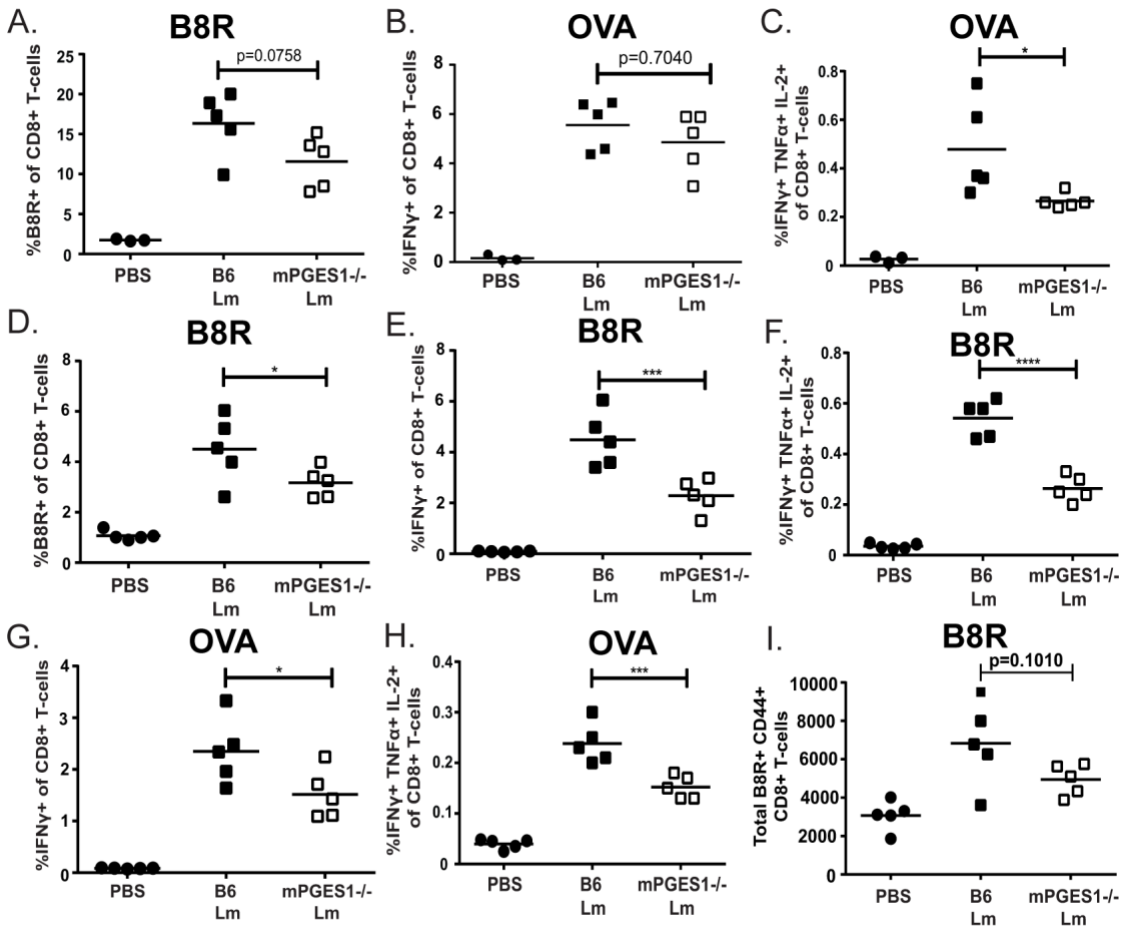
Supplemental Figures



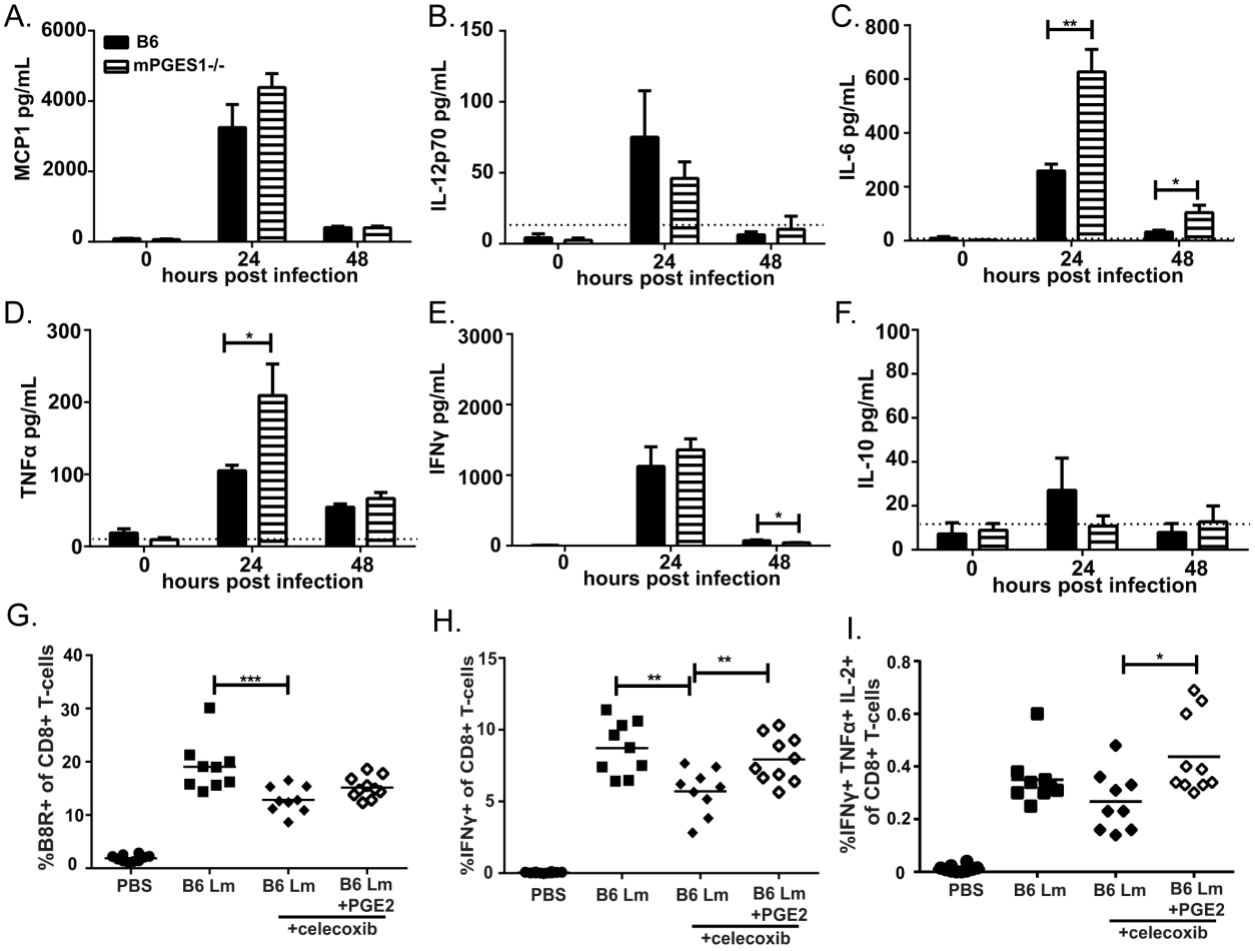
Supplemental Figure 1: Cyclooxygenase modulation does not influence bacterial burdens or DC maturation states. The indicated strains of mice in the presence or absence of celecoxib-laden chow were immunized with $1x10^7$ cfu attenuated Lm. CD8+ T-cells were assessed 7 days post immunization by B8R tetramer (A), or by OVA-stimulated IFNγ (B) or IFNγ, TNFα, and IL-2 (C). Bacterial burdens in the spleens or livers were assessed 24 or 48 hours post immunization. Spleens and livers were removed, homogenized and plated for bacterial burdens (D-G). Spleens were removed and analyzed by flow cytometry (H-K). Samples were gated on CD11c+ (H-K), followed by selection for CD8α (I), CD86 (J) or CD40 (K). Data are representative of 2 independent experiments of 5 mice per group (A-C) or are the combination of 3 independent experiments of 3 mice per group. Significance was determined by a one-way ANOVA with Bonferroni's correction. *p<0.05, **p<0.01, ***p<0.001, ****p<0.0001



Supplemental Figure 2: Cyclooxygenase modulation does not impact innate immune cell recruitment, but influences innate cytokine production. The indicated strains of mice in the presence or absence of celecoxib-laden chow were immunized with $1x10^7$ cfu attenuated Lm. 24 or 48 hours post immunization, spleens were removed and analyzed by flow cytometry (A-D). Samples were gated on CD11b+ (A-C) followed by selection for $Ly6C^{hi}$ populations (B) or $Ly6G^{hi}$ populations (C). Samples were gated for NK1.1 (D). 24 or 48 hours post immunization serum was examined via cytokine bead array (E-J) for MCP-1 (E), IL-12p70 (F), IL-6 (G), TNFα (H), IFNγ (I) or IL-10 (J). Data are of the combination of 3 independent experiments of 3 mice/group. Significance was determined by a one-way ANOVA with Bonferroni's correction. *$p<0.05$



Supplemental Figure 3: mPGES1$^{-/-}$ mice have impaired cell-mediated immunity. The indicated strains of mice were immunized with either 1x10^7 cfu (A-C) or 1x10^3 cfu (D-H) of attenuated Lm and assessed for the indicated antigen-specific response at 7 days post immunization by tetramer (A, D) or by intracellular cytokine staining (B-C, E-H). Cells were gated for CD8+ T-cells followed by IFNγ, TNFα, and IL-2 as indicated. Memory responses (I) were assessed following immunization with 1x10^7 cfu of attenuated Lm at 30 days post immunization via B8R-tetramer staining on CD3+ CD8+ CD44+ cells. Data are representative of 2-3 independent experiments of 5 mice per group. Significance was determined by a one-way ANOVA with Bonferroni's correction. *p<0.05, **p<0.01, ***p<0.001



Supplemental Figure 4: PGE2 is sufficient for immunity to *L. monocytogenes*. Wild-type or mPGES1$^{-/-}$ mice were immunized with 1x10^7 attenuated Lm. 24 or 48 hours post immunization serum was examined via cytokine bead array (A-F) for MCP-1 (A), IL-12p70 (B), IL-6 (C), TNFα (D), IFNγ (E) or IL-10 (F). PGE2 was supplemented in celecoxib treated animals immunized with 1x10^7 cfu attenuated Lm (G-I) and primary responses were assessed via B8R-tetramer (G) or OVA-specific intracellular cytokine responses (H-I). Data are the combination of 2 independent experiments of 3-5 mice/group. Significance was determined by a student's t-test (A-F) or one-way ANOVA with Bonferroni's correction (G-I). *p<0.05, **p<0.01, ***p<0.001