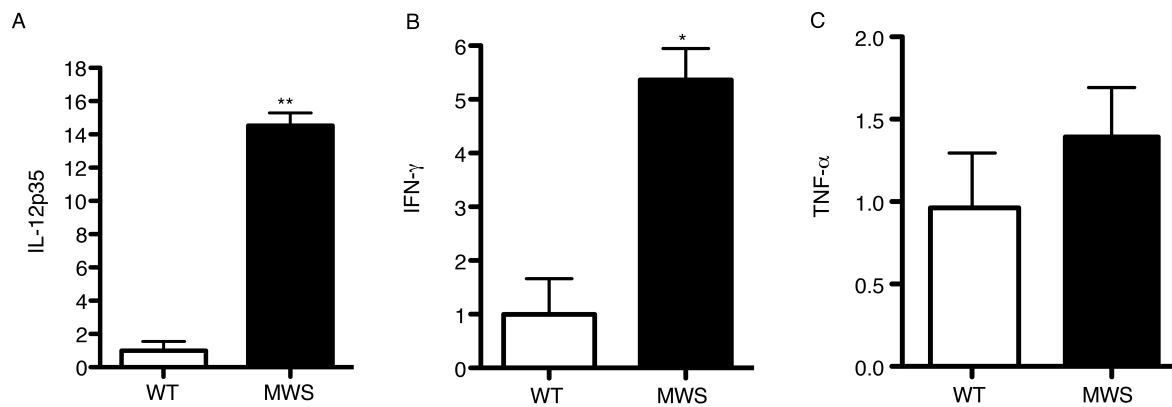


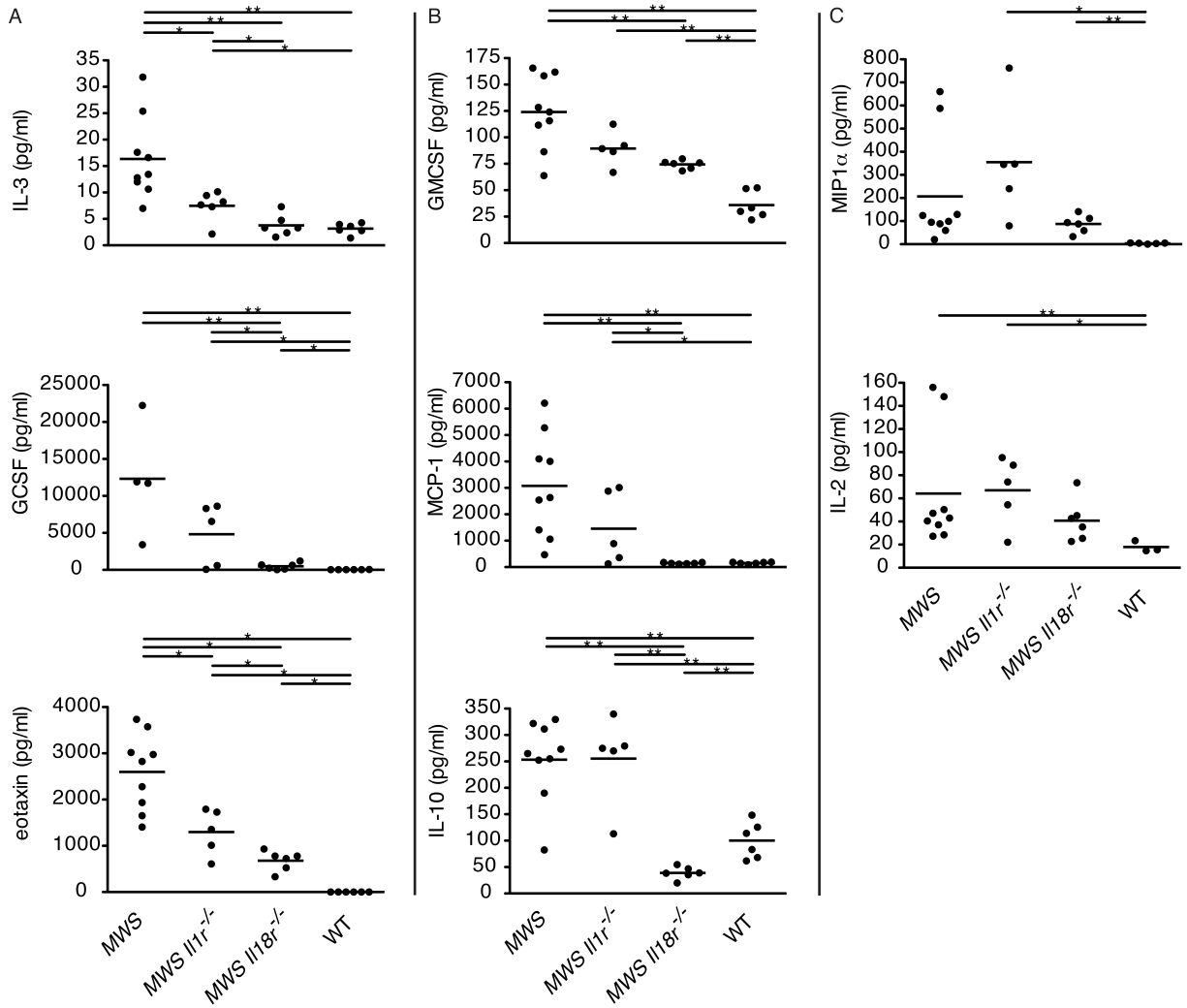
## **SUPPLEMENTAL DATA**

### **Divergence of IL-1, IL-18 and cell death in NLRP3 inflammasomopathies**

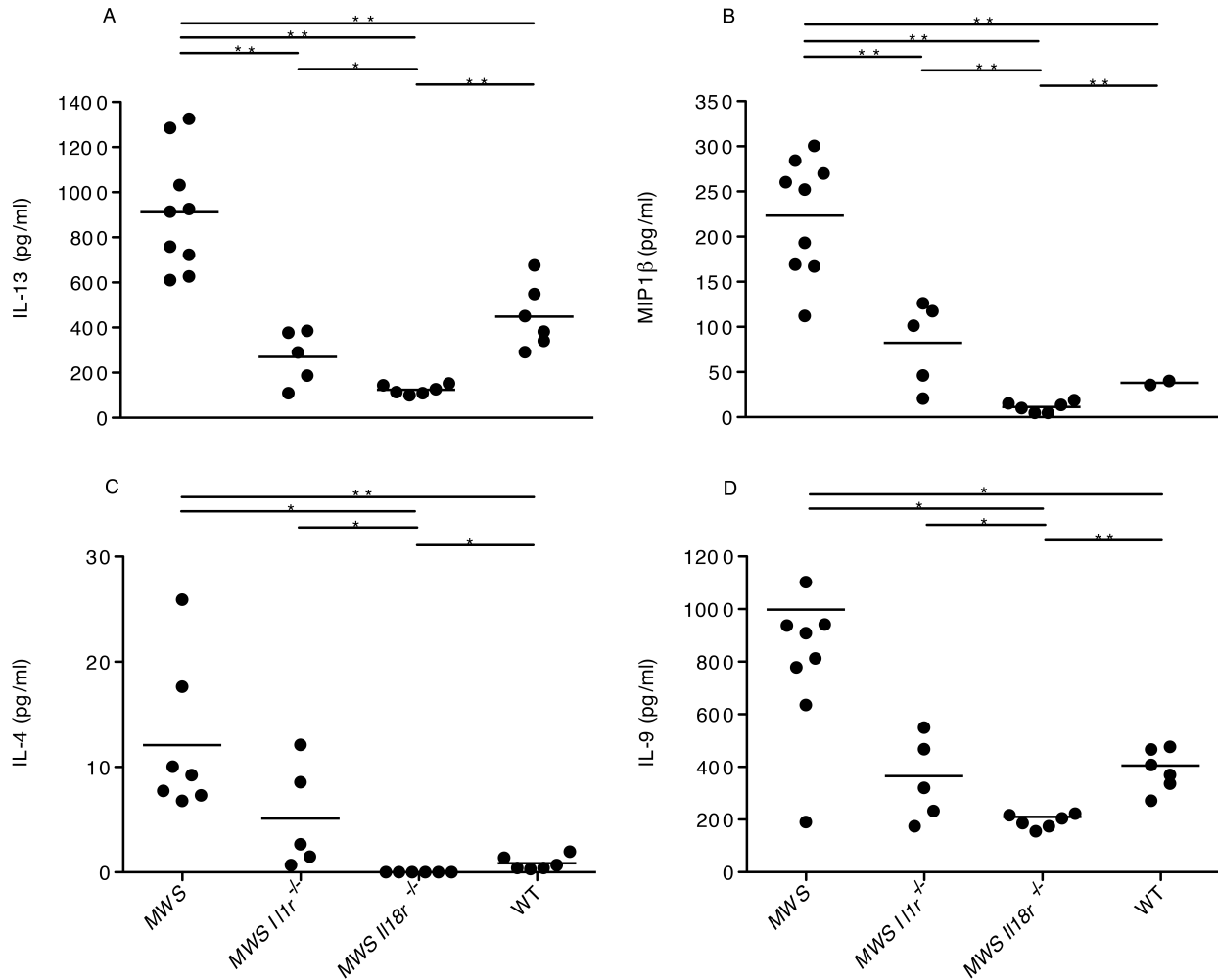
Susannah D. Brydges, Lori Broderick, Matthew D. McGeough, Carla A. Pena, James L. Mueller  
and Hal M. Hoffman



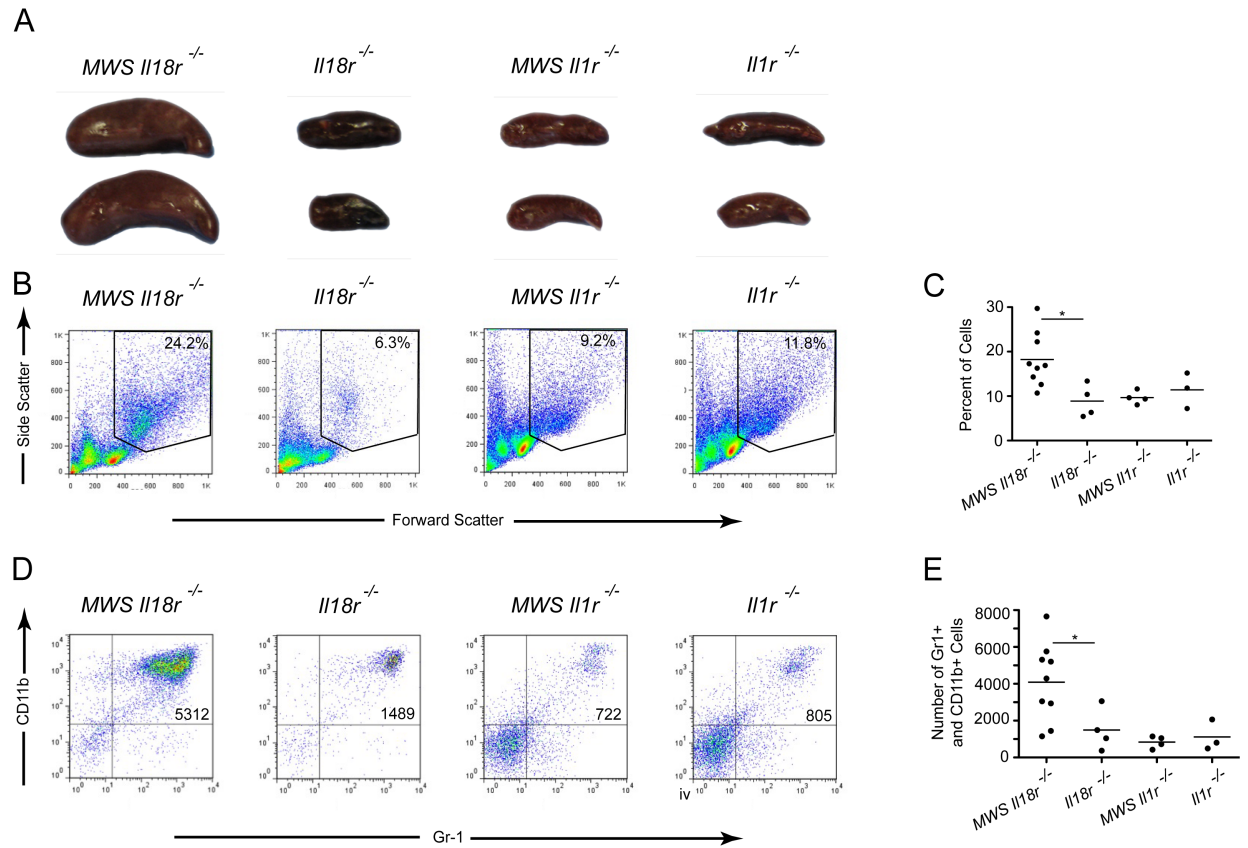
**Figure S1. IL-18 present in the skin is biologically active and leads to upregulation of IL-18-targeted cytokines.** mRNA expression levels of IL-12p35 (A), IFN- $\gamma$  (B), and TNF- $\alpha$  (C) in skin biopsies from *MWS* (n=9) and *WT* (n=7) mice, expressed as fold-change compared to GAPDH, shown as mean  $\pm$  SEM. \*, p<0.05; \*\*, p<0.005.



**Figure S2. Disruption of IL-18R signaling normalizes key CAPS serum cytokine levels to a greater extent than the absence of IL-1R signaling.** Multiplex cytokine analysis of serum obtained at days 6–8 from WT, MWS, MWS *Il1r*<sup>-/-</sup> and MWS *Il18r*<sup>-/-</sup> pups, n $\geq$ 5 mice, each graph point represents 1 mouse, with mean identified. Panels A, B and C indicate the varying degrees of normalization. P values calculated by Student's t test. \*, p<0.05; \*\*, p<0.005.



**Figure S3. Disruption of IL-18 signaling normalizes additional serum Th2 and chemokine levels in CAPS.** Multiplex cytokine analysis of serum obtained at days 6–8 from WT, MWS, MWS *Il1r*<sup>-/-</sup> and MWS *Il18r*<sup>-/-</sup> pups, n≥5 mice, each graph point represents 1 mouse, with mean identified. P values calculated by Student's t test. \*, p<0.05; \*\*, p<0.005.



**Figure S4. *MWS Il18r<sup>-/-</sup>* mice display significant splenic inflammation.** (A) Whole spleens from *MWS Il18r<sup>-/-</sup>*, *Il18r<sup>-/-</sup>*, *MWS Il1r<sup>-/-</sup>*, and *Il1r<sup>-/-</sup>* mice. Two representative spleens are shown for each strain. (B) Flow cytometry of splenic cells from adult *MWS Il18r<sup>-/-</sup>* mice demonstrate increased percentages of large granulocytes compared to age-matched *Il18r<sup>-/-</sup>*, *MWS Il1r<sup>-/-</sup>*, and *Il1r<sup>-/-</sup>* mice. Panels are representative of 3-9 mice per strain. Results are summarized in (C). \*,  $p < 0.05$ . (D) Two-color immunofluorescent staining identifies these cells as Gr-1<sup>+</sup> CD11b<sup>+</sup> neutrophils with increased absolute numbers in *MWS Il18r<sup>-/-</sup>* mice compared to *Il18r<sup>-/-</sup>*, *MWS Il1r<sup>-/-</sup>*, and *Il1r<sup>-/-</sup>* mice. Flow cytometry panels are representative of 3-9 mice per strain. Results are summarized in (E). \*,  $p < 0.05$ .