

Supplementary Information for

Specific Sequences of Infectious Challenge Leads to Secondary Hemophagocytic Lymphohistiocytosis-like Disease in Mice

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Supplementary Information Text

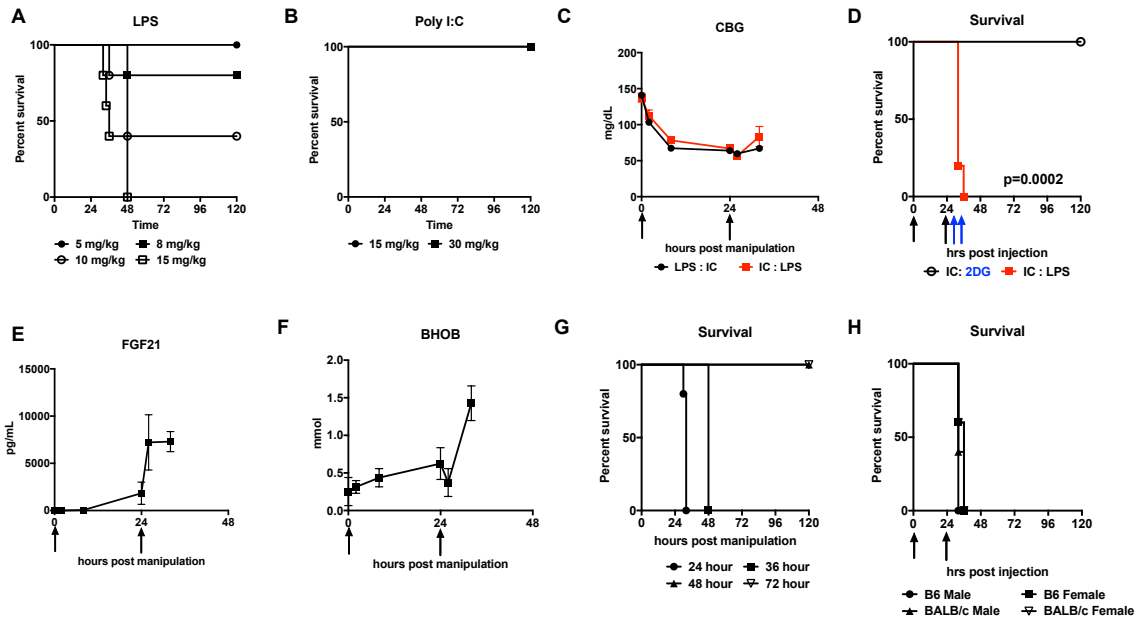


Fig. S1. A. Survival of 8 week old C57Bl6/J males challenged i.p. with the indicated dose of LPS (n=10 per group). B. Survival of 8 week old C57Bl6/J males challenged i.v. with the indicated dose of Poly I:C (n=10 per group). C. Capillary blood glucose of mice challenged with LPS:IC or IC:LPS. D. Survival of animals challenged with Poly I:C then repeated doses of 2DG at the indicated times (blue arrows) or IC:LPS (n=8 per group). E. Plasma FGF21 in mice challenged with IC:LPS (n=5 per group). F. Plasma beta hydroxybutyrate in mice challenged with IC:LPS (n=5 per group). G. Survival of mice challenged with Poly I:C, then LPS at the indicated time after Poly I:C (n=5 per group). H. Survival of 8 week old C57Bl6/J or Balb/c males and females challenged with IC:LPS (n=5 per group).

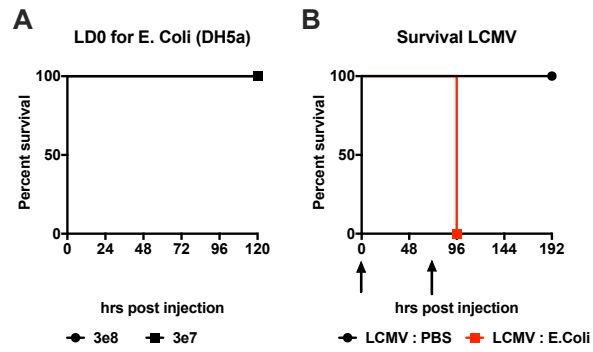


Fig. S2. A. Survival of 8 week old C57Bl6/J males challenged i.p. with DH5a E. Coli at the indicated CFU (n=5 per group). B. Survival of mice challenged with LCMV i.p. followed by DH5a E. Coli i.p. or *vice versa* (n=5 per group).

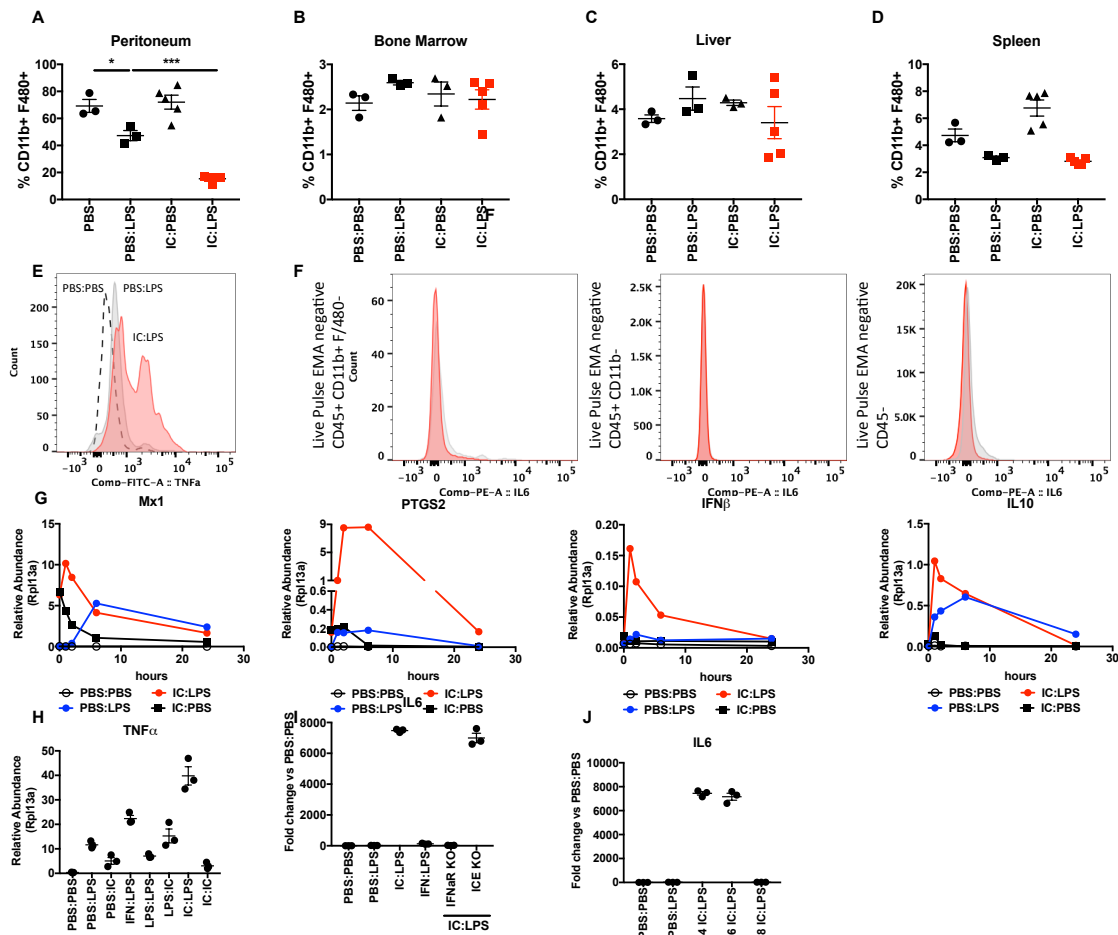


Fig. S3. A-D. Percentage of CD11b+ F480+ cells in the peritoneal lavage (A), bone marrow (B), liver (C), and spleen (D) 2 hours after the second challenge. E. Representative histogram plots of *ex vivo* intracellular analyses of TNF of CD11b+ F480+ cells isolated from the peritoneum of mice challenged with indicated treatments (n>3 per group). F. Representative histogram plots of *ex vivo* intracellular analyses of IL6 in CD11b+ F480- liver cells (left), CD45+ CD11b- liver cells (center), or CD45- liver cells (right). G. Relative abundance of the indicated genes in BMDM challenged with the indicated treatments. H. Relative abundance of *Tnfa* in BMDM 2 hours after treatment with the indicated conditions. I. Relative abundance of *Il6* in C57Bl6/J BMDM 2 hours after treatment with the indicated conditions, and in IFN α R KO and Caspase 1/11 KO (ICE KO) BMDM treated with IC:LPS. J. Relative abundance of *Il6* in C57Bl6/J BMDM 2 hours after treatment with the indicated conditions, with LPS treatment 24 hours following Poly I:C (24 IC:LPS), 36 hours following Poly I:C (36 IC:LPS) and 48 hours following Poly I:C (48 IC:LPS).

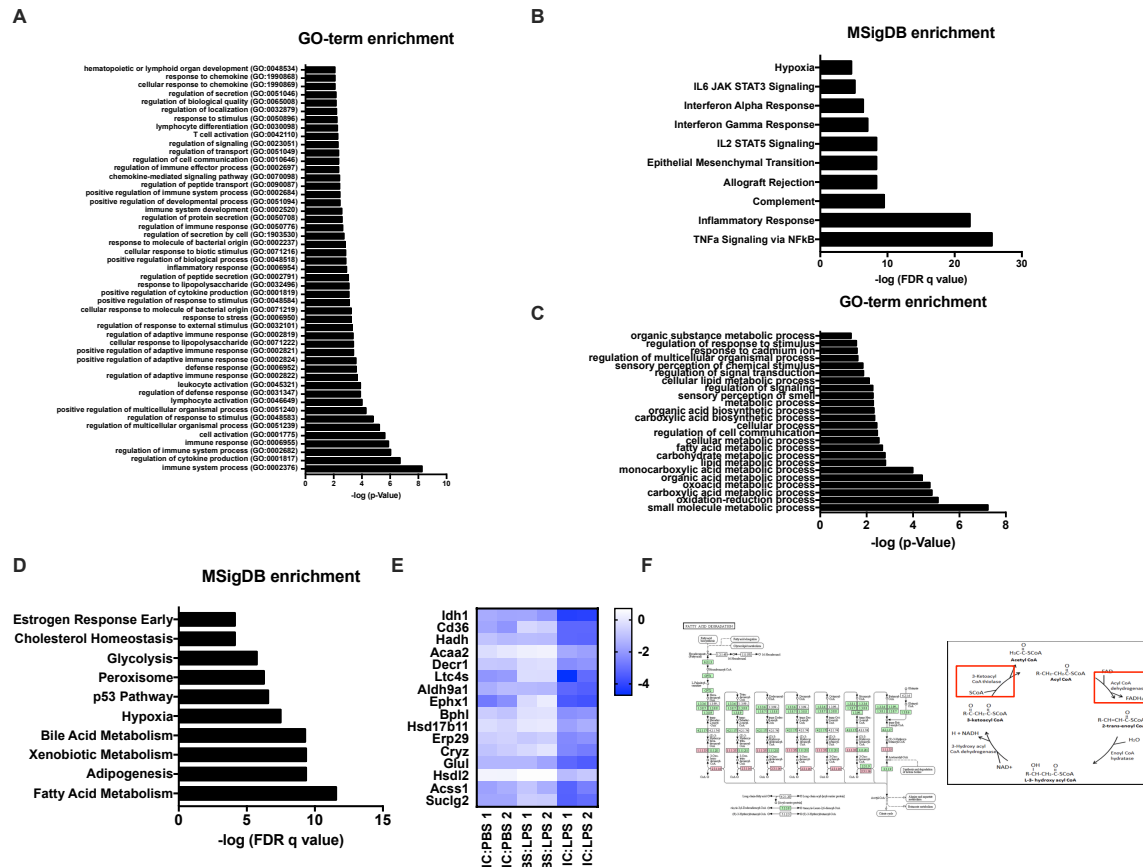


Fig. S4. A-B. GO (A) and MSigDB (B) pathway enrichment analyses of differentially upregulated genes in IC:LPS treated BMDM. C-D. GO-term pathway (C) or MSigDB pathway (D) analyses of significantly downregulated genes in IC:LPS BMDMs. E. Heatmap of genes identified in pathway analyses. F. KEGG analyses of differentially downregulated genes identified through pathway analyses involved in fatty acid metabolism (left). Schematic of fatty acid oxidation with differentially downregulated genes in IC:LPS BMDM highlighted in red (right).

Table S1. qRT-PCR primer sequences.

Gene	Forward Primer	Reverse Primer
<i>Ifnb1</i>	5'-GCACTGGGTGGAATGAGACTATTG-3'	5'-TTCTGAGGCATCAACTGACAGGTC-3'
<i>Il1b</i>	5'-CAGTTGTCTAATGGGAACGTCA-3'	5'-GCACCTTCTTTTCCTTCATCTTT-3'
<i>Il6</i>	5'-GACTTCCATCCAGTTGCCTTCTTGG-3'	5'-CCAGTTTGGTAGCATCCATCATTCT-3'
<i>Mx1</i>	5'-TCCTCCCCAAATGTTTTAG-3'	5'-ACTGAGATGACCCAGCACCT-3'
<i>Rpl13a</i>	5'-GAGGTCGGGTGGAAGTACCA-3'	5'-TGCATCTTGGCCTTTTCCTT-3'
<i>Tnf</i>	5'-TCTGTCTACTGAACTTCGGGGTG-3'	5'-ACTTGGTGGTTTGCTACGACG-3'
<i>Spic</i> (mouse)	5'-CAGTTTGGGGCAAACATTTTC-3'	5'-AGTTAGCGTTGCCTCTGACG-3'
<i>Spic</i> (human)	5'-AATTACCTGGCTTTCATCAACC-3'	5'-CAGCACTGTTTATTACTGTTCTCC-3'