LETTER TO THE EDITOR

Loss of nuclear myosin 1 causes hemostatic defects and immune dysregulation

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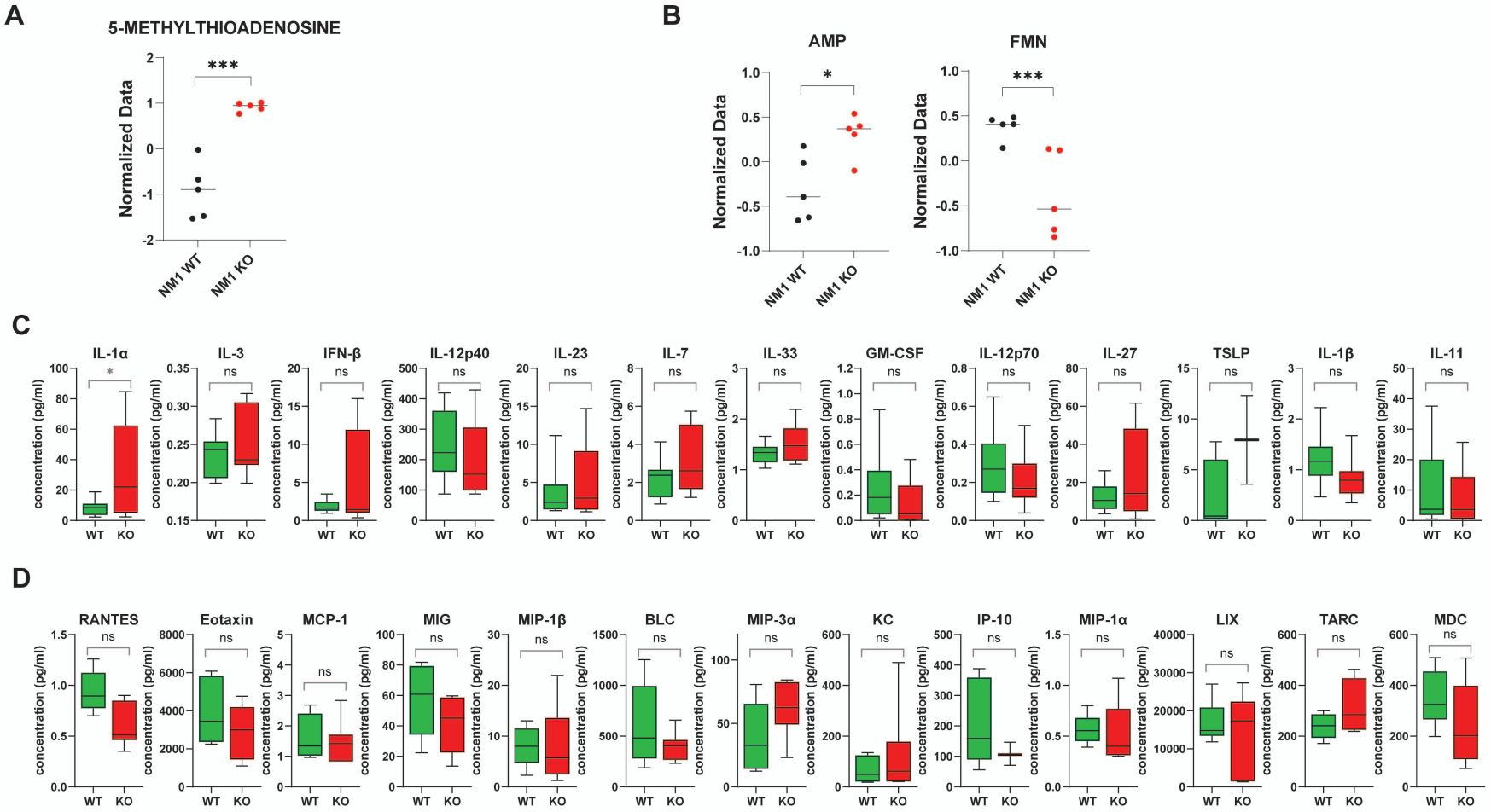
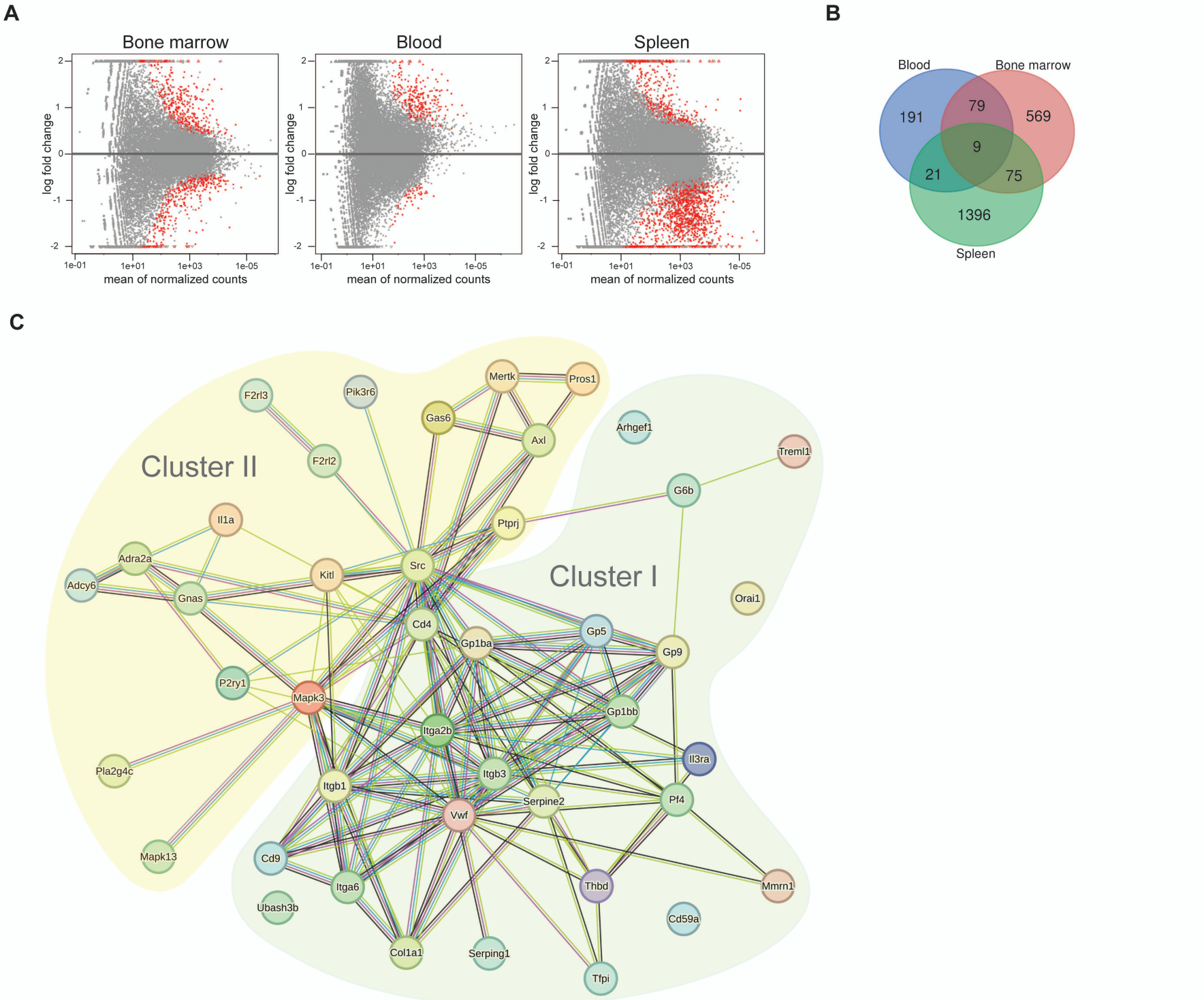
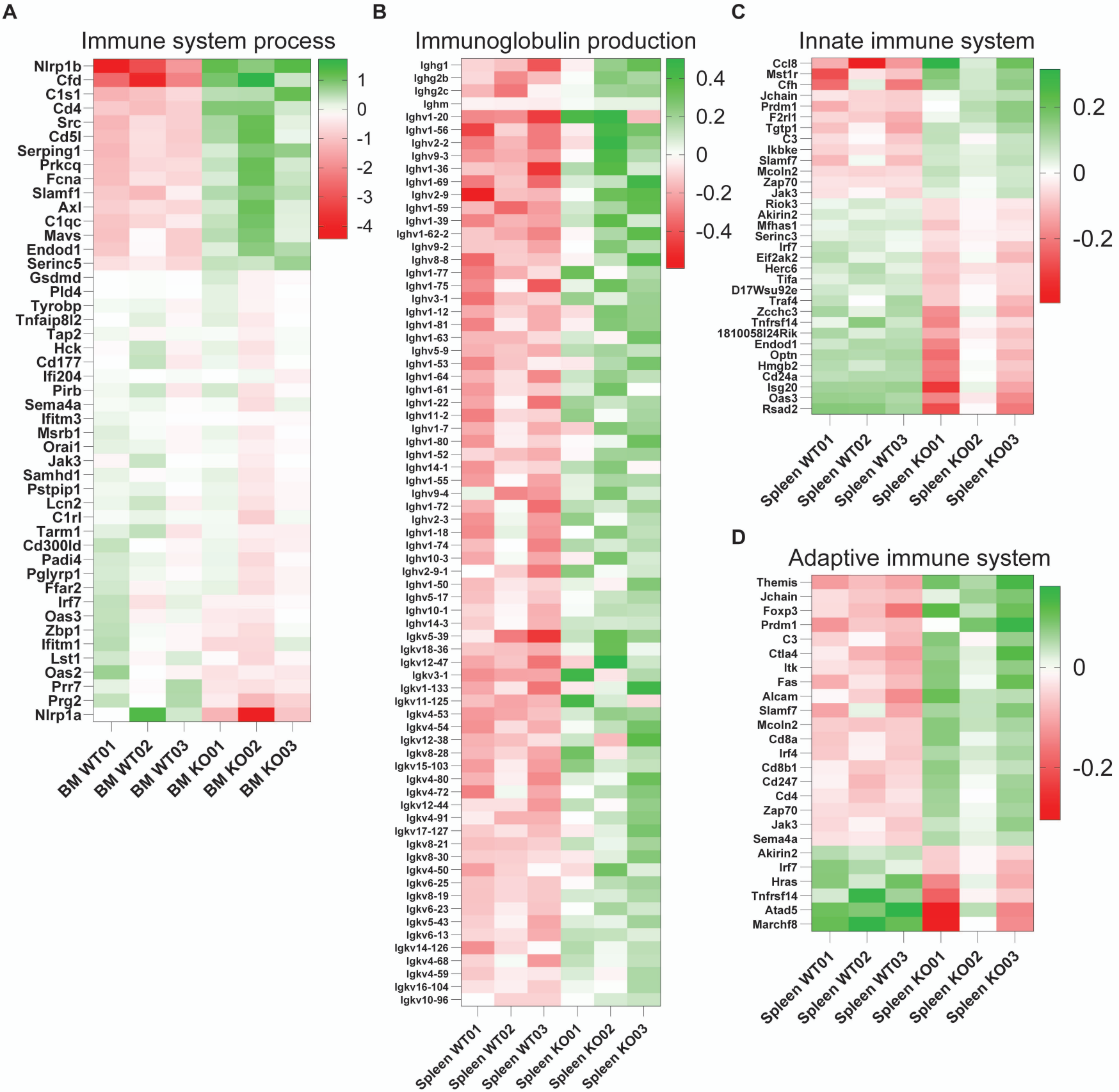


Supplementary figure 1. NM1 deletion leads to changes in hematopoietic signature metabolites and cytokine/chemokine profiles. (A) Metabolomic profile of 5-methylthioadenosine (MTA) across experimental samples as detected by positive ionization. *** P≤0.001 (B) Metabolomic profile of AMP and FMN across experimental samples as detected by negative ionization. * P≤0.05, *** P≤0.001 (C) List of analyzed cytokines in NM1 WT and NM1 KO serum samples. ns P > 0.05, * P ≤0.05. (D) List of analyzed chemokines in NM1 WT and NM1 KO serum samples. ns P > 0.05, * P≤0.05.



Supplementary figure 2. (A) MA plot visualization of the differences in gene expression between experimental conditions as a function of log fold change versus the mean of normalized counts. Each dot represents a single gene expression profile with only red-marked genes to be significantly differentially expressed. (B) Venn diagram showing the intersection in all differentially expressed genes between hematopoietic tissues. (C) String analysis diagram of all differentially expressed bone marrow genes associated with a KEGG GO term “Platelet activation”, a Biological process GO term “Platelet activation”, KEGG GO term “Haemopoietic cell lineage”, and Biological GO term “Blood coagulation”.



Supplementary figure 3. Gene expression analysis of genes associated with the innate and adaptive immune system in the bone marrow and spleen. (A) Heatmap of all differentially expressed genes between NM1 WT and KO bone marrow samples associated with Innate immune system GO term. (B) Heatmap of all differentially expressed genes between NM1 WT and KO spleen samples associated with Immunoglobulin production. (C) Heatmap of all differentially expressed genes between NM1 WT and KO spleen samples associated with the innate immune system. (D) Heatmap of all differentially expressed genes between NM1 WT and KO spleen samples associated with the adaptive immune system.