

Investigating heat shock protein dysregulation and immune cell dynamics in non-alcoholic steatohepatitis by integrated multi-RNA seq analysis

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Supporting Information

Table S1. Proportions of the CD16+ myeloid cells in normal and HFD diet mouse liver

Cell type	Normal Diet Liver		HFD Diet Induced NASH Liver	
Monocyte	400	0.272	2135	0.419
Macrophage/Kupffer cell	843	0.574	1469	0.288
Mast cell	187	0.127	1087	0.213
Neutrophil	38	0.026	402	0.079

Table S2. Proportions of monocyte-derived macrophages and Kupffer cell macrophages in normal and HFD mouse liver

Cell type	Normal Liver		HFD NASH Liver	
Monocyte-derived macrophage	85	0.101	1464	0.997
Kupffer cell	758	0.899	5	0.003

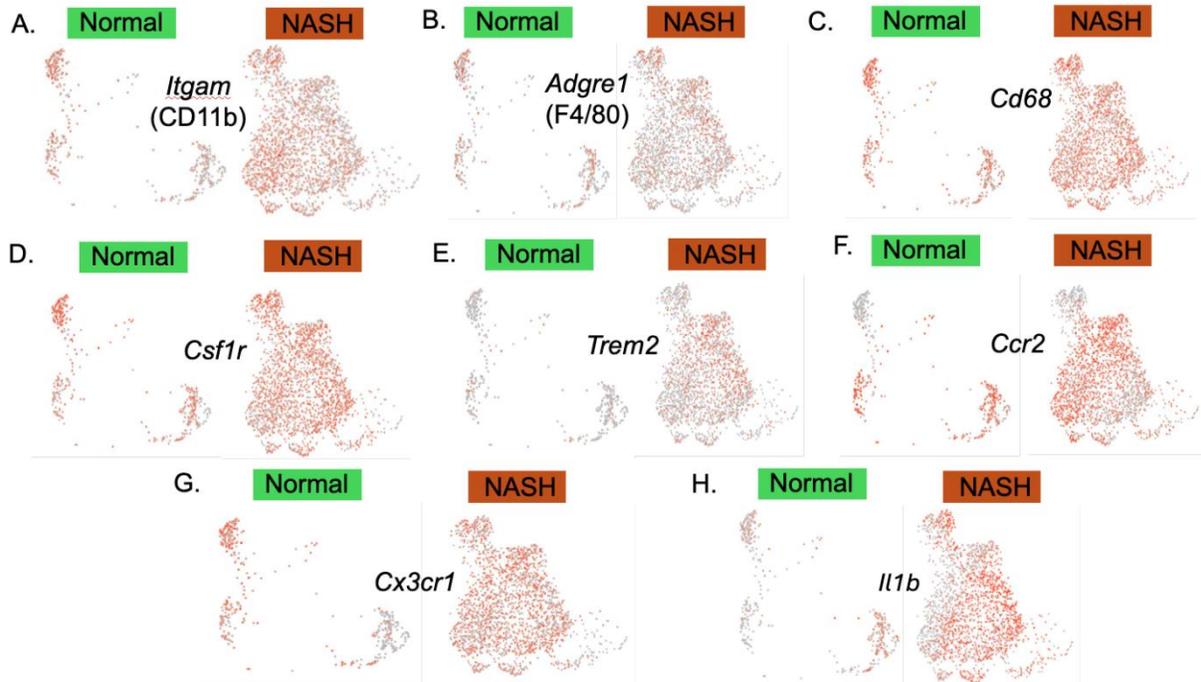


Figure S1. Gene expression patterns of the monocytes in normal and HFD-induced NASH liver. (A-D) The expression of monocyte/macrophage markers *Itgam*, *Adgre1*, *CD68*, and *Csf1r* in monocytes from normal (left) and HFD-induced NASH (right) liver. (E) The expression of lipid receptor *Trem2* in the monocytes of normal (left) and HFD-induced NASH (right) liver. (F-G) The expression of monocyte/macrophage recruitment chemokine receptors *Ccr2*, *Cx3cr1* in the monocytes of normal (left) and HFD-induced NASH (right) liver. (H) The expression of proinflammatory cytokine *Il1b* in the monocytes of normal (left) and HFD-induced NASH (right) liver.

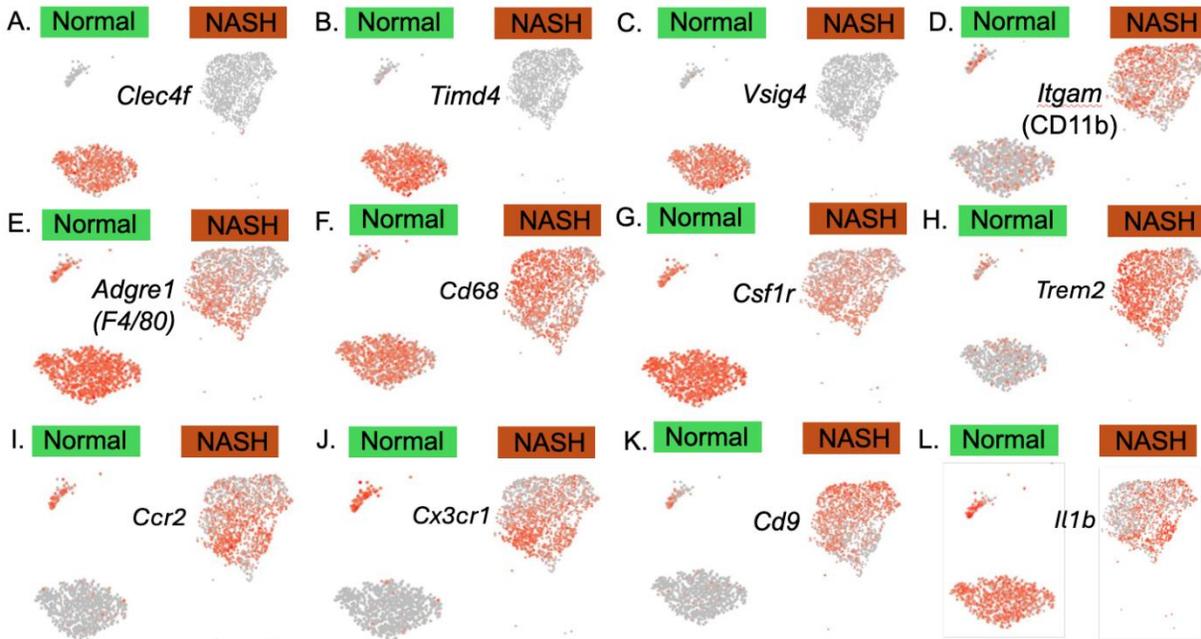


Figure S2. Gene expression patterns of Kupffer cells and monocyte-derived macrophages in normal and HFD-induced NASH livers. (A-C) The expression of Kupffer cell markers of *Clec4f*, *Tim4*, *Vsig4* in Kupffer cells and MDMs of normal (left) and HFD-induced NASH (right) liver. (D-G) The expression of monocyte/macrophage markers *Itgam*, *Adgre1*, *Cd68*, and *Csf1r* in Kupffer cells and MDMs of normal (left) and HFD-induced NASH (right) liver. (H-I) The expression of lipid receptors *Trem2*, *Cd9* in Kupffer cells and MDMs of normal (left) and HFD-induced NASH (right) liver. (J-K) The expression of monocyte/macrophage recruitment chemokine receptors *Ccr2*, *Cx3cr1* in Kupffer cells and MDMs of normal (left) and HFD-induced NASH (right) liver. (L) The expression of proinflammatory cytokine *Il1b* in Kupffer cells and MDMs of normal (left) and HFD-induced NASH (right) liver.

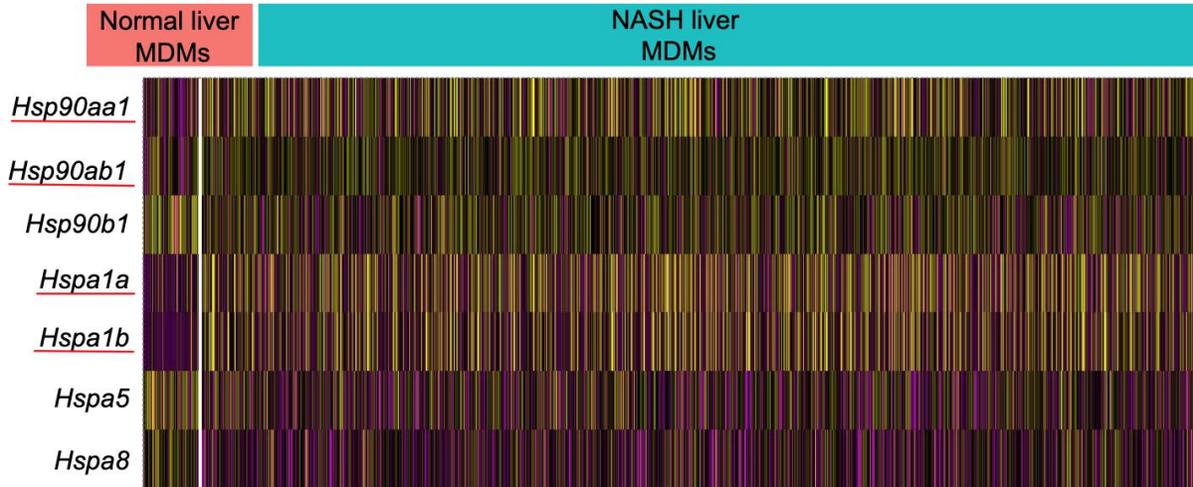


Figure S3. Dysregulation of HSPs in the MDMs of HFD-induced NASH liver compared with normal livers. The red underlines mark the significantly upregulated HSPs in the monocyte of NASH liver. The remaining are significantly downregulated HSPs.