Zinc finger transcription factor Egf1 promotes non-alcoholic fatty

liver disease

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Table of contents

Fig. S1	Page 2
Fig. S2	Page 3
Fig. S3	Page 4
Fig. S4	Page 5
Fig. S5	Page 6
Fig. S6	Page 7
Fig. S7	Page 8
Fig. S8	Page 9
Fig. S9	Page 10
Fig. S10	Page 11
Fig. S11	Page 12
Fig. S12	Page 13
Fig. S13	Page 14
Fig. S14	Page 15
Fig. S15	Page 16



Fig. S1: (**A**, **B**) C57/B6 mice were fed on a high-fat diet (HFD) or a control diet (CD) for 12 weeks. Egr1 expression was examined by qPCR and western blotting. N=6 mice for each group.



Fig. S2: (**A**, **B**) *Apoe^{-/-}* mice were fed on a Western diet or a control diet (CD) for 7 weeks. Egr1 expression was examined by qPCR and western blotting. N=6 mice for each group.



Fig. S3: (**A**, **B**) C57/B6 mice were fed on CDA-HFD or a control diet (CD) for 8 weeks. Egr1 expression was examined by qPCR and western blotting. N=6 mice for each group.



Fig. S4: HepaRG cells and primary murine hepatocytes were treated with or without oleate (0.2mM). EGR1 expression was examined by qPCR.



Fig. S5: HepaRG cells and primary murine hepatocytes were treated with or without fructose (10mM). EGR1 expression was examined by qPCR.



Fig. S6: (**A-C**) Primary hepatocytes were treated with or without palmitate (PA, 0.2mM). SRF expression was examined by qPCR (A) and western blotting (B). SRF sub-cellular localization was examined by immunofluorescence staining (C).



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Fig. S7: ChIP assay was performed with anti-SRF or IgG using liver lysates from *db/db* mice and *db/*+ mice.



Fig. S8: HepaRG cells and primary murine hepatocytes were transfected with siRNA targeting SRF or scrambled siRNAs (SCR) followed by treatment with fructose (10mM). Egr1 expression was examined by qPCR



Fig. S9: Lentivirus carrying shRNA targeting Egr1 (Lenti-shEgr1) or a control shRNA (Lenti-shC) was injected into *db/db* mice. Egr1 expression was examined by qPCR and western blotting.



Fig. S10: Lentivirus carrying shRNA targeting Egr1 (Lenti-shEgr1) or a control shRNA (Lenti-shC) was injected into *db/db* mice. Egr1 knockdown did not alter body weight of the mice.



Fig. S11: Lentivirus carrying shRNA targeting Egr1 (Lenti-shEgr1) or a control shRNA (Lenti-shC) was injected into *db/db* mice. JNK expression and phosphorylation were examined by western blotting.



Fig. S12: Lentivirus carrying shRNA targeting Egr1 (Lenti-shEgr1) or a control shRNA (Lenti-shC) was injected into *db/db* mice. Plasma □-hydroxybutyrate was measured by a commercially available kit.



Fig. S13: (**A**) Lentivirus carrying shRNA targeting Egr1 (Lenti-shEgr1) or a control shRNA (Lenti-shC) was injected into *db/db* mice. Hepatic FGF21 expression was examined by qPCR. (B) Murine primary hepatocytes were transfected with siRNA targeting Egr1 or scrambled siRNAs (SCR) followed by treatment with GW7647 (0.1□M). FGF21 expression was examined by qPCR.



Fig. S14: C57/B6 mice were subjected to 12h of fasting followed by 12h of re-feeding. Hepatic Egr1 expression was examined by qPCR.



Fig. S15: Nab1 expression levels in the livers of NASH patients and healthy individuals were examined by qPCR. Linear regression was performed by Graphpad Prism. N=8 cases for each group.