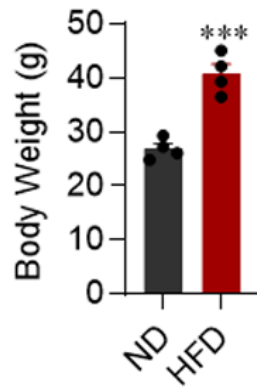


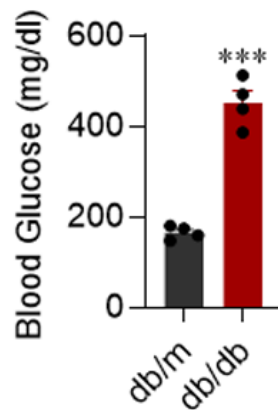
## Hepatic Sam68 regulates glucose homeostasis and insulin sensitivity

Aijun Qiao, Wenxia Ma, Ying Jiang, Chaoshan Han, Baolong Yan, Junlan Zhou and Gangjian Qin

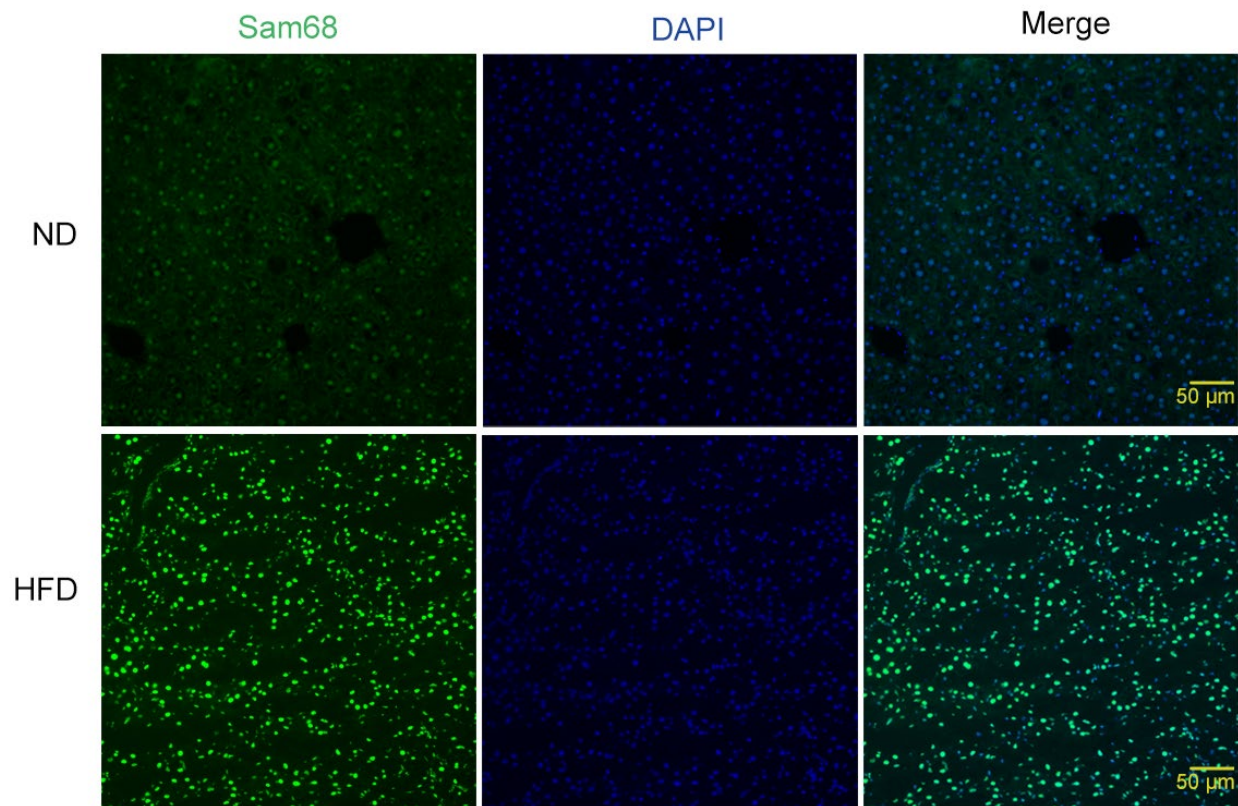
### Supplementary Figures



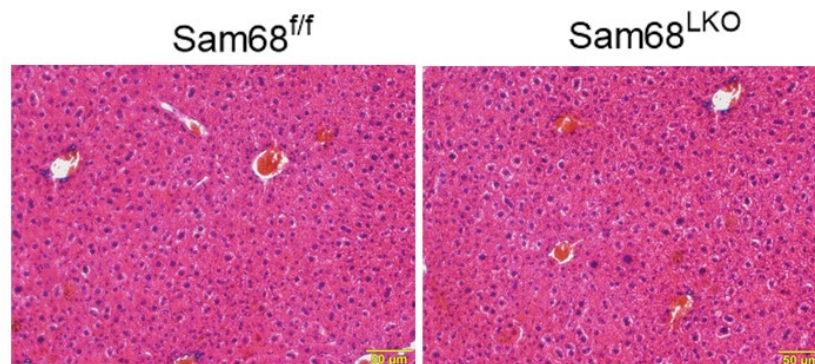
**Figure S1.** Body weight of C57BL/6J male mice fed on normal diet (ND) and high fat diet (HFD) for 12 weeks.  $n=4$  per group. \*\*\* $p < 0.001$ . Unpaired two-tailed Student's  $t$  test.



**Figure S2.** Blood glucose levels in db/db and db/m (control) male mice at age of 8–12 weeks.  $n=4$  per group. \*\*\* $p < 0.001$ . Unpaired two-tailed Student's  $t$  test.



**Figure S3. Sam68 protein expression in the nucleus of hepatocytes is increased in the HFD-induced obese (prediabetic) mice.** Liver sections were obtained from C57BL/6J mice fed on HFD or ND for 12 weeks and stained with anti-Sam68 antibody (green) and DAPI (blue).



**Figure S4. Representative images of H&E staining in the liver of Sam68<sup>LKO</sup> mice and Sam68<sup>f/f</sup> mice at 8-12 weeks old.**

## Supplementary Tables

**Table S1. List of PCR primers**

	Forward sequence	Reverse sequence
<b>For assessment of gene expression with qRT-PCR</b>		
mSREBP-	GGAGCCATGGATTGCACATT	GGCCCGGGAAGTCACTGT
mPGC-1 $\alpha$	AGCCGTGACCACTGACAACGAG	GCTGCATGGTTCTGAGTGCTAAG
mPEPCK	CCACAGCTGCTGCAGAACAA	GAAGGGTCGCATGGCAAA
mG6pase	TGGGCAAAATGGCAAGGA	TCTGCCCCAGGAATCAAAAAT
m $\beta$ -actin	GTATGGAATCCTGTGGCATC	AAGCACTTGCGGTGCACGAT
mSam68	GATATCTGTCAGGAGCAGTTTCT	CTCCTCGTCCTCTCACAGATA
hPGC-1 $\alpha$	AACAGCAGCAGAGACAAATGCACC	TGCAGTTCCAGAGAGTTCCACACT
hPEPCK	AAGGAGGATGCCCTGAACCTGAAA	TGCACCTTATGGATGGGAAAGGGA
hG6Pase	TGAATGGCTGCAGTGACCCAGATA	TGGATGTGGAGCCAGTGGGAAGAAT
h $\beta$ -actin	AGGATGCAGAAGGAGATCACTG	GGGTGTAACGCAACTAAGTCATAG
h-Sam68	GCGAGTGCTGATACCTGTCAAG	TCATTGAGCCCTTTCCCAAT
<b>For ChIP-qPCR</b>		
mPGC-1 $\alpha$	GGGCTGCCTTGGAGTGACGTC	AGTCCCCAGTCACATGACAAAG
mG6pase	GGAGGGCAGCCTCTAGCACTGTCA	TCAGTCTGTAGGTCAATCCAGCCC
mPEPCK	GGCCTCCCAACATTCAATTAAC	GTAGCCCGCCCTCCTTGCTTTA
<b>For genotyping of Sam68<sup>LKO</sup> mice</b>		
Alb-Cre	TGCCTGCATTACCGGTGCGATGC	CCATGAGTGAACGAACCTGGTGC

**Table S2. List of antibodies**

Name	Catalogue	Company Name
PGC-1 $\alpha$	ab54481	Abcam
G6Pase	ab83690	Abcam
Sam68 for WB and Immunofluorescence	ab76471	Abcam
PEPCK	12940	Cell Signaling
$\beta$ -actin	8457	Cell Signaling
$\beta$ -tubulin	2146	Cell Signaling
$\alpha$ -tubulin	2144	Cell Signaling
p-AKT (Thr308)	2965	Cell Signaling
p-AKT (Ser473)	4060	Cell Signaling
Mouse IgG Sepharose Bead Conjugate	3420	Cell Signaling
AKT	9272	Cell Signaling
CRTC2	PA5-72994	Thermo Fisher
Sam68 (7-1) for co-IP	sc-1238	Santa Cruz
Sam68 (7-1) for ChIP	sc-1238AC	Santa Cruz
Anti-mouse IgG, HRP-linked antibody	7076	Cell Signaling
Anti-rabbit IgG, HRP-linked antibody	7074	Cell Signaling
Alexa Fluor 488-conjugated anti-rabbit IgG	A32790	Thermo Fisher