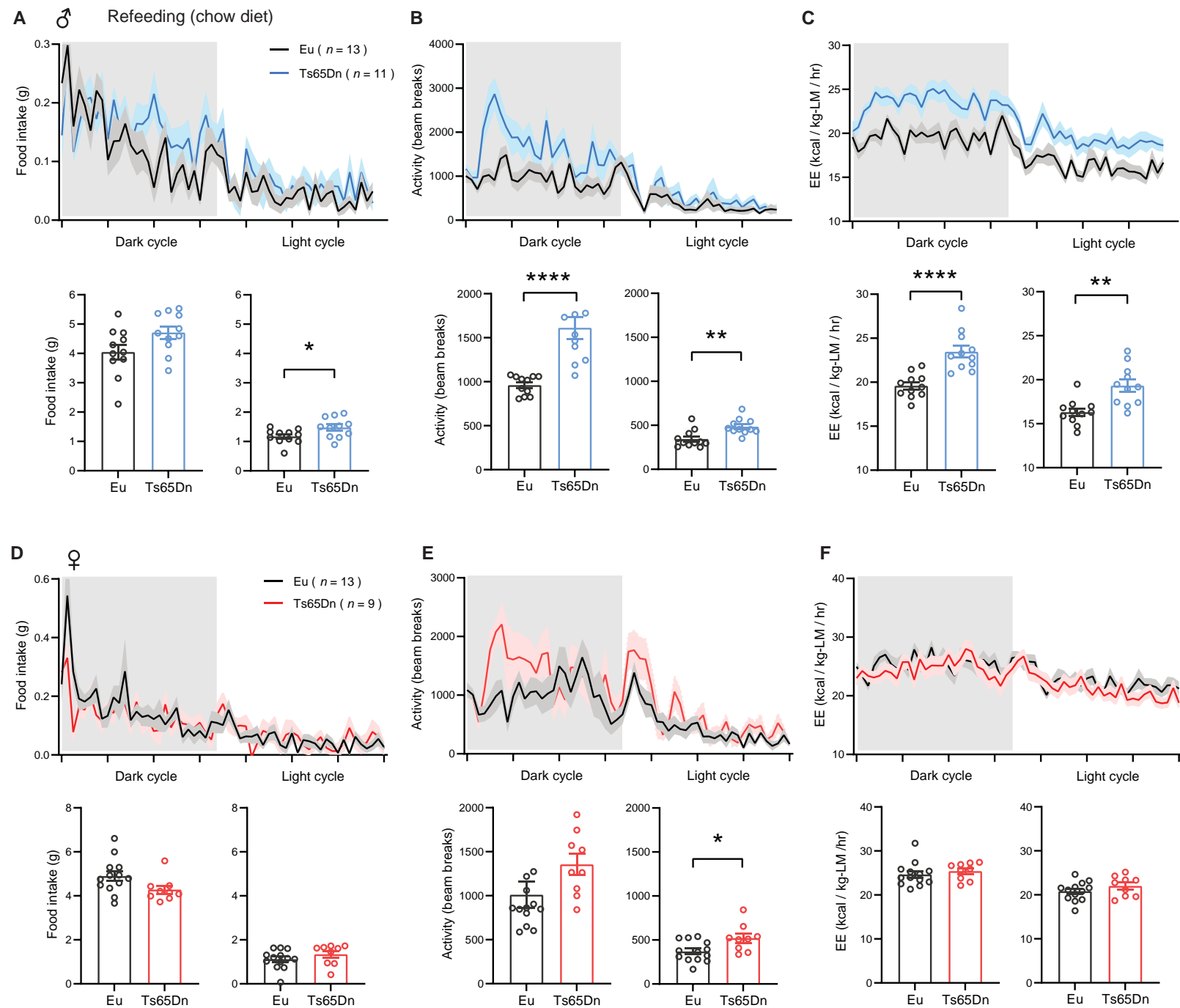


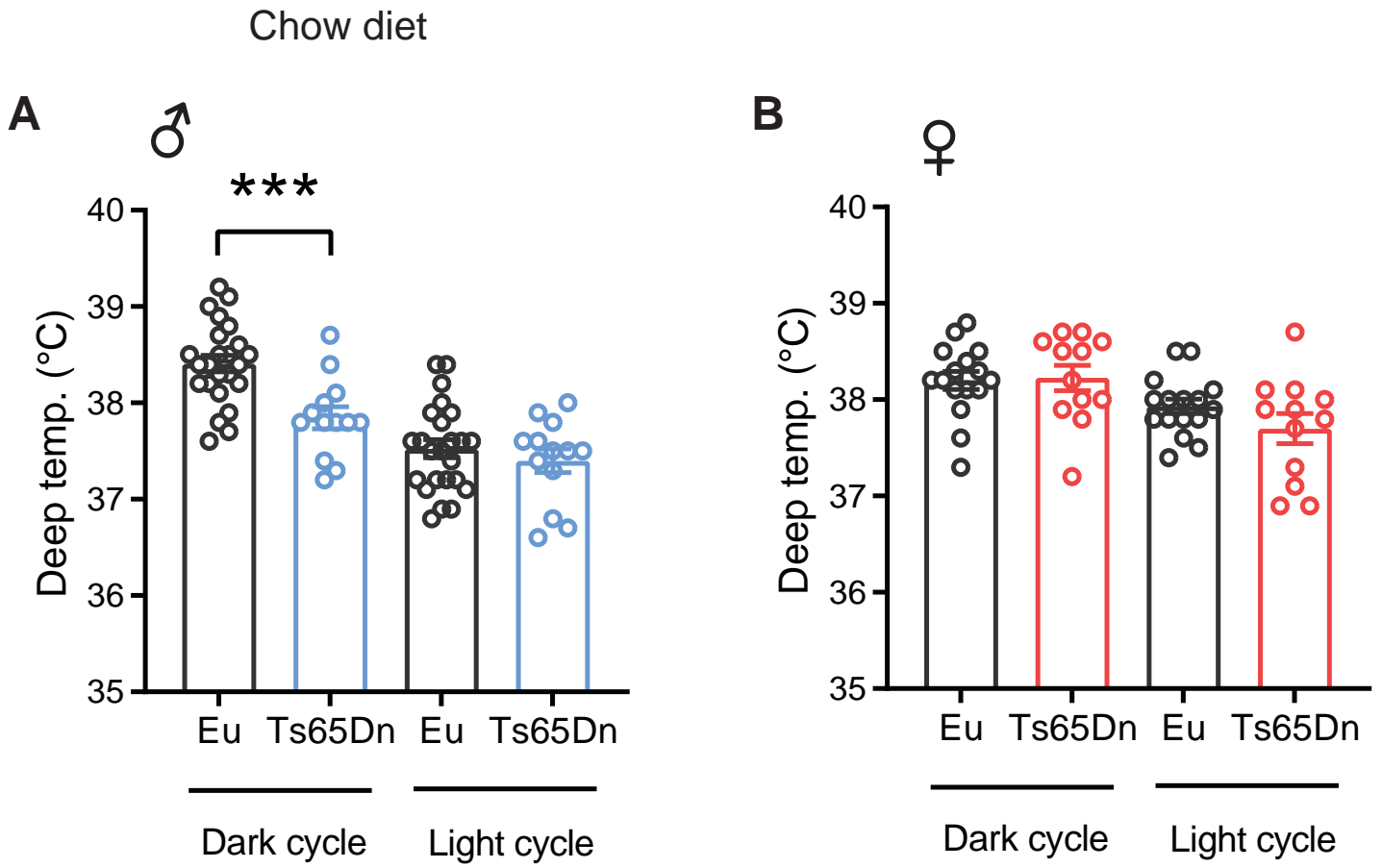
**Figure S1. Elevated physical activity and energy expenditure during the 24 hour fasting period in chow-fed Ts65Dn mice.** A-B) Physical activity level (A) and energy expenditure (B) of male Ts65Dn and euploid mice across the circadian cycle during a 24 hr fast. Bar graphs indicate cumulative physical activity and energy expenditure in the dark and light photocycle. C-D). Physical activity level (C) and energy expenditure (D) of female Ts65Dn and euploid mice across the circadian cycle during a 24 hr fast. Bar graphs indicate cumulative physical activity and energy expenditure in the dark and light photocycle. All data are presented as mean  $\pm$  SEM. \*  $P < 0.05$ ; \*\*  $P < 0.01$ ; \*\*\*\*  $P < 0.0001$

Fig. S2



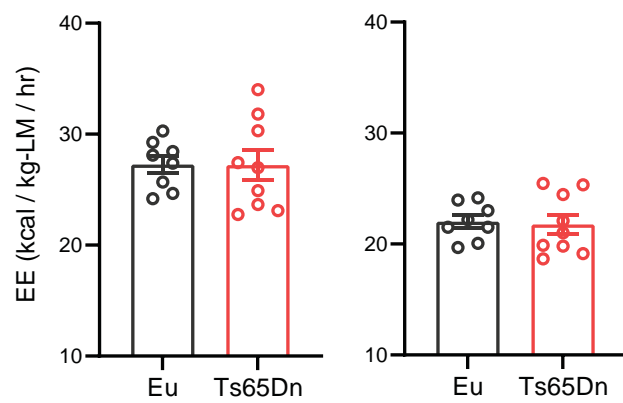
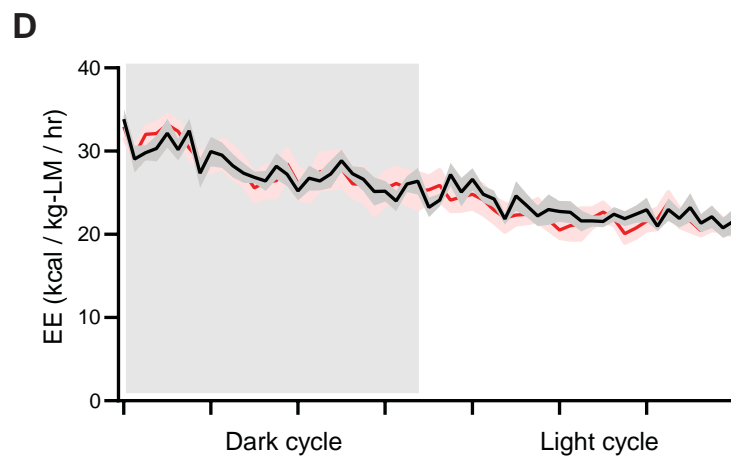
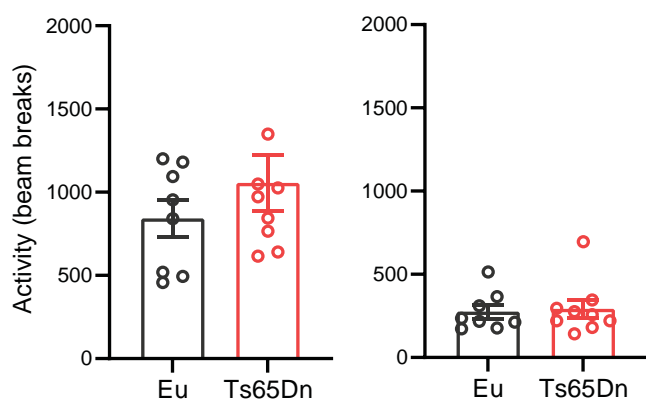
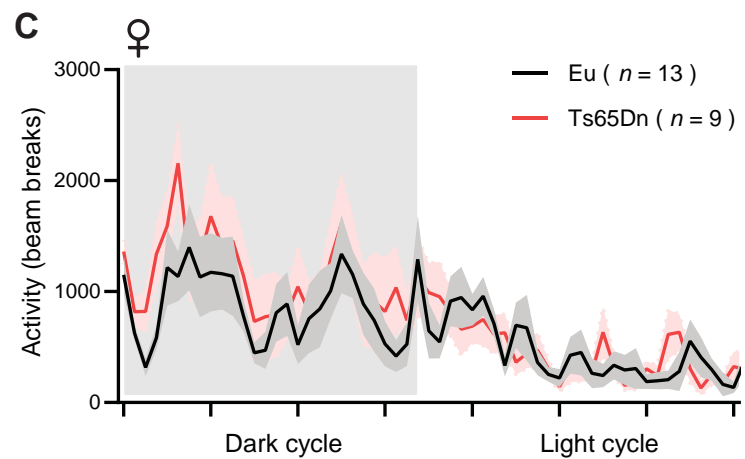
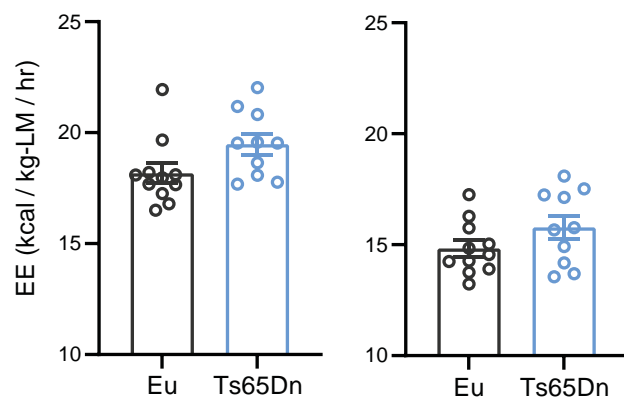
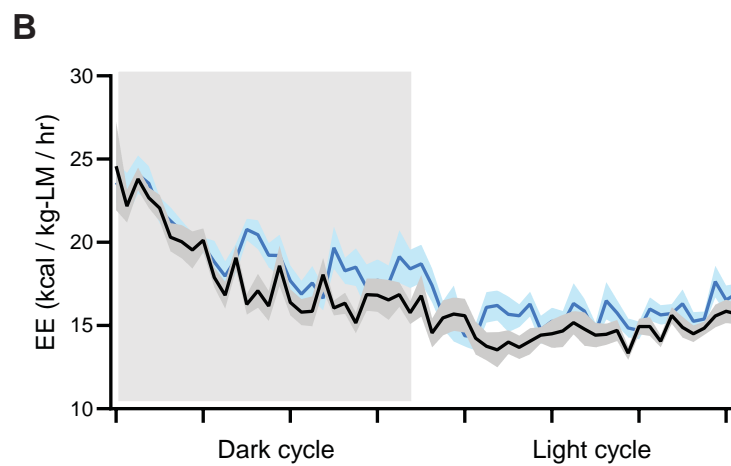
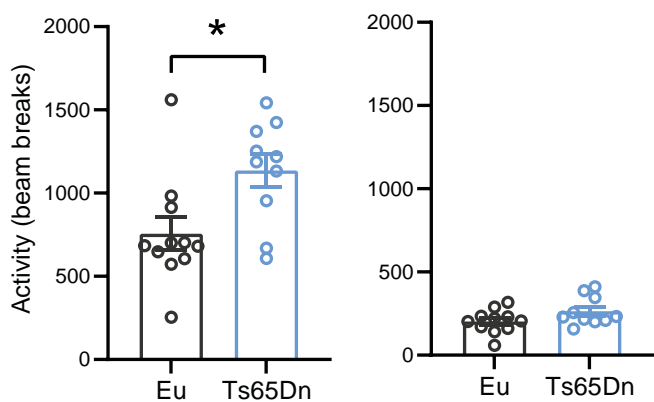
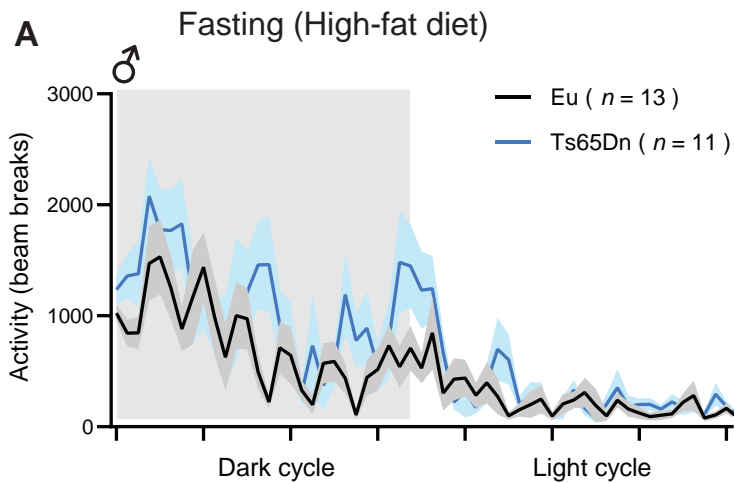
**Figure S2. Food intake, physical activity, and energy expenditure during the refeeding period in chow-fed Ts65Dn mice.** A-C) Food intake (A), physical activity level (B), and energy expenditure (C) of male Ts65Dn and euploid mice across the circadian cycle during a 24 hr refeeding period after food deprivation. Bar graphs indicate cumulative food intake, physical activity, and energy expenditure in the dark and light photocyclus. D-F) Food intake (D), physical activity level (E), and energy expenditure (F) of female Ts65Dn and euploid mice across the circadian cycle during a 24 hr refeeding period after food deprivation. Bar graphs indicate cumulative food intake, physical activity, and energy expenditure in the dark and light photocyclus. All data are presented as mean  $\pm$  SEM. \*  $P < 0.05$ ; \*\*  $P < 0.01$ ; \*\*\*\*  $P < 0.0001$

Fig. S3



**Figure S3. Body temperature in chow-fed Ts65Dn mice.** A-B) Deep colonic temperature in male (A) and female (B) Ts65Dn and euploid mice in the dark and light cycle. Sample size for male (Eu,  $n = 24$ ; Ts65Dn,  $n = 13$ ) and female (Eu,  $n = 16$ ; Ts65Dn,  $n = 12$ ) mice. All data are presented as mean  $\pm$  SEM.

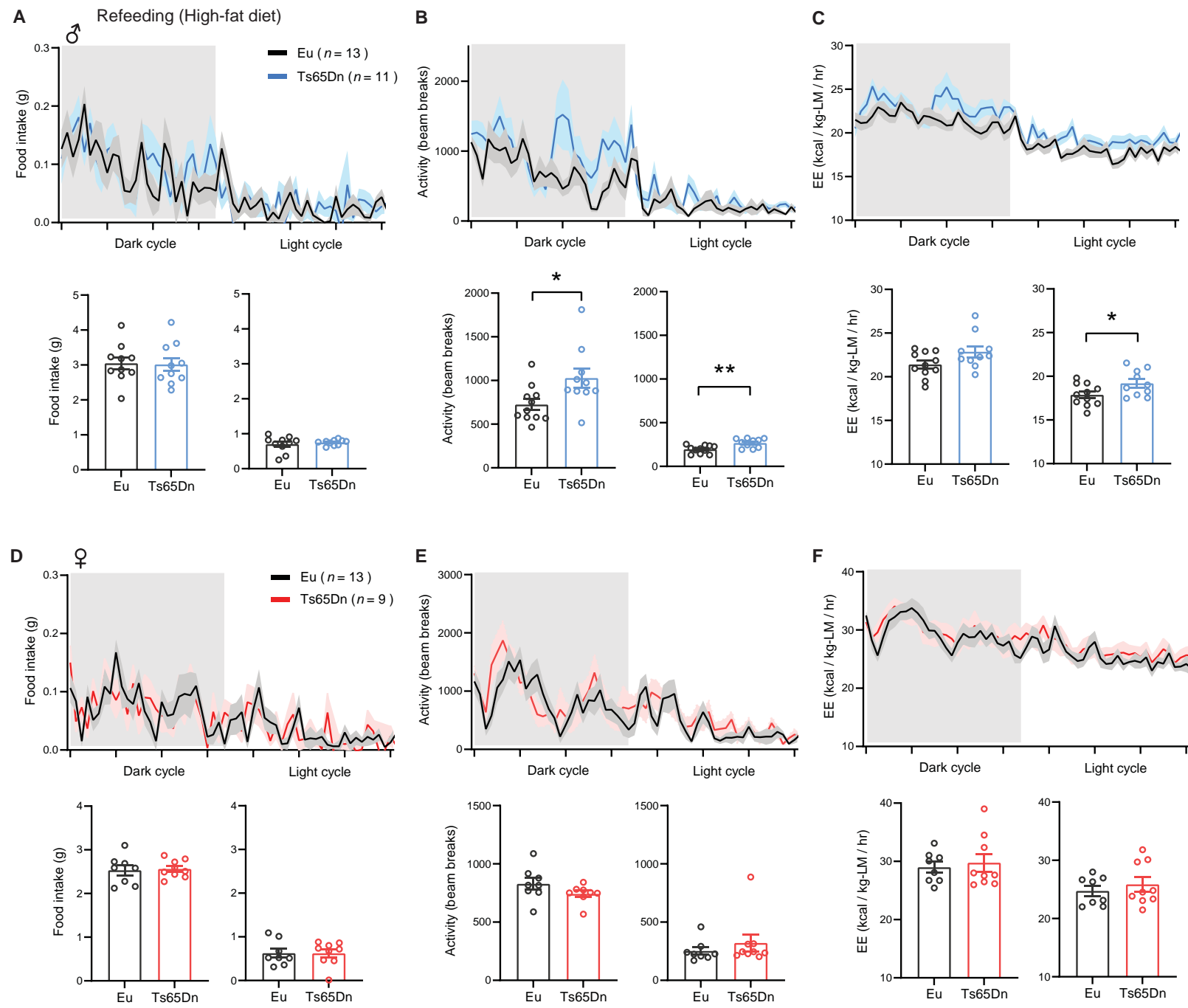
\*\*\*  $P < 0.001$



**Figure S4. Physical activity and energy expenditure during a 24 hour fasting period in high-fat diet (HFD)-fed Ts65Dn mice.** A-B) Physical activity level (A) and energy expenditure (B) of male Ts65Dn and euploid mice across the circadian cycle during a 24 hr fast. Bar graphs indicate cumulative physical activity and energy expenditure in the dark and light photocycle. C-D). Physical activity level (C), and energy expenditure (D) of female Ts65Dn and euploid mice across the circadian cycle during a 24 hr fast. Bar graphs indicate cumulative physical activity and energy expenditure in the dark and light photocycle. All data are presented as mean  $\pm$  SEM. \*  $P < 0.05$

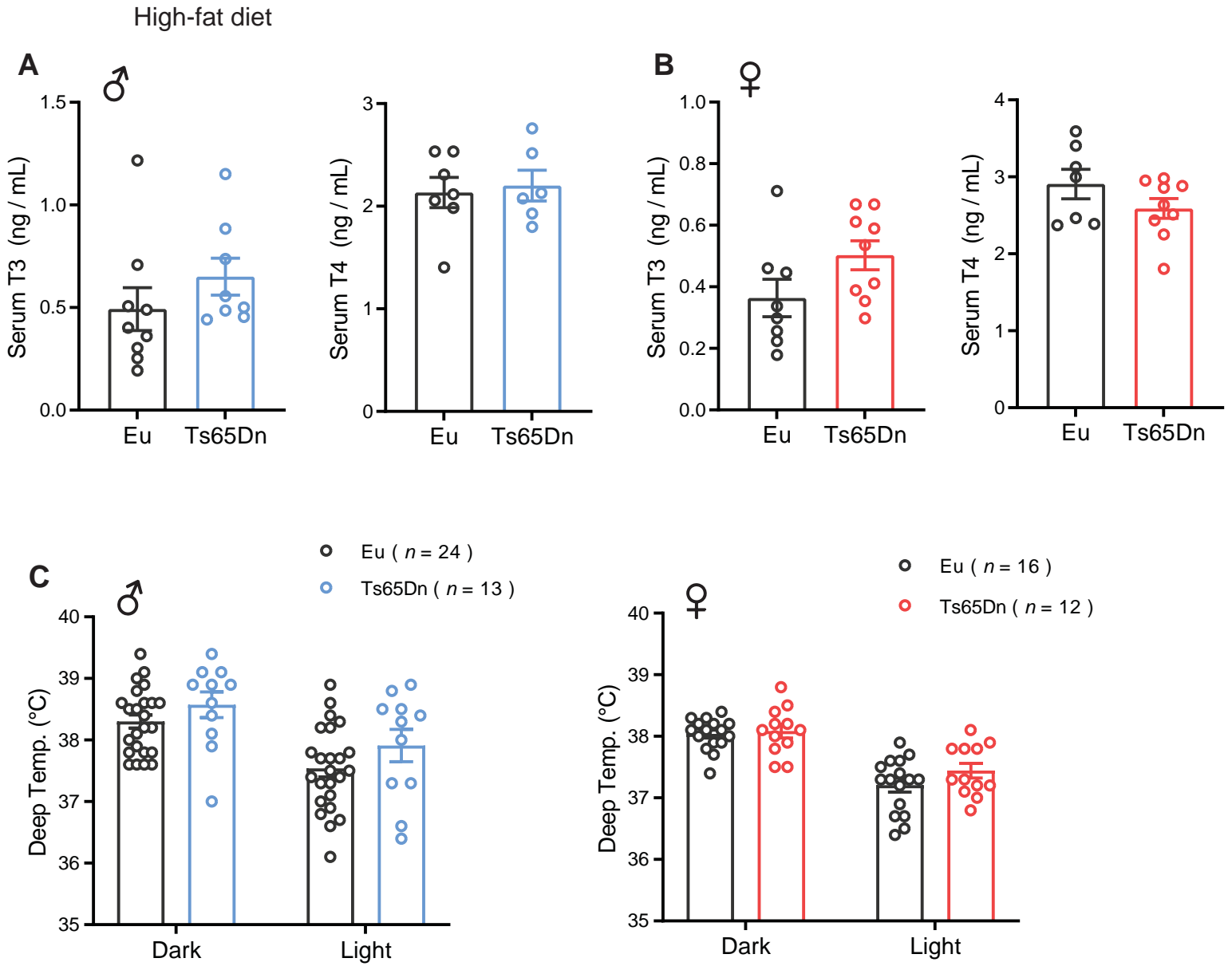


Fig. S5

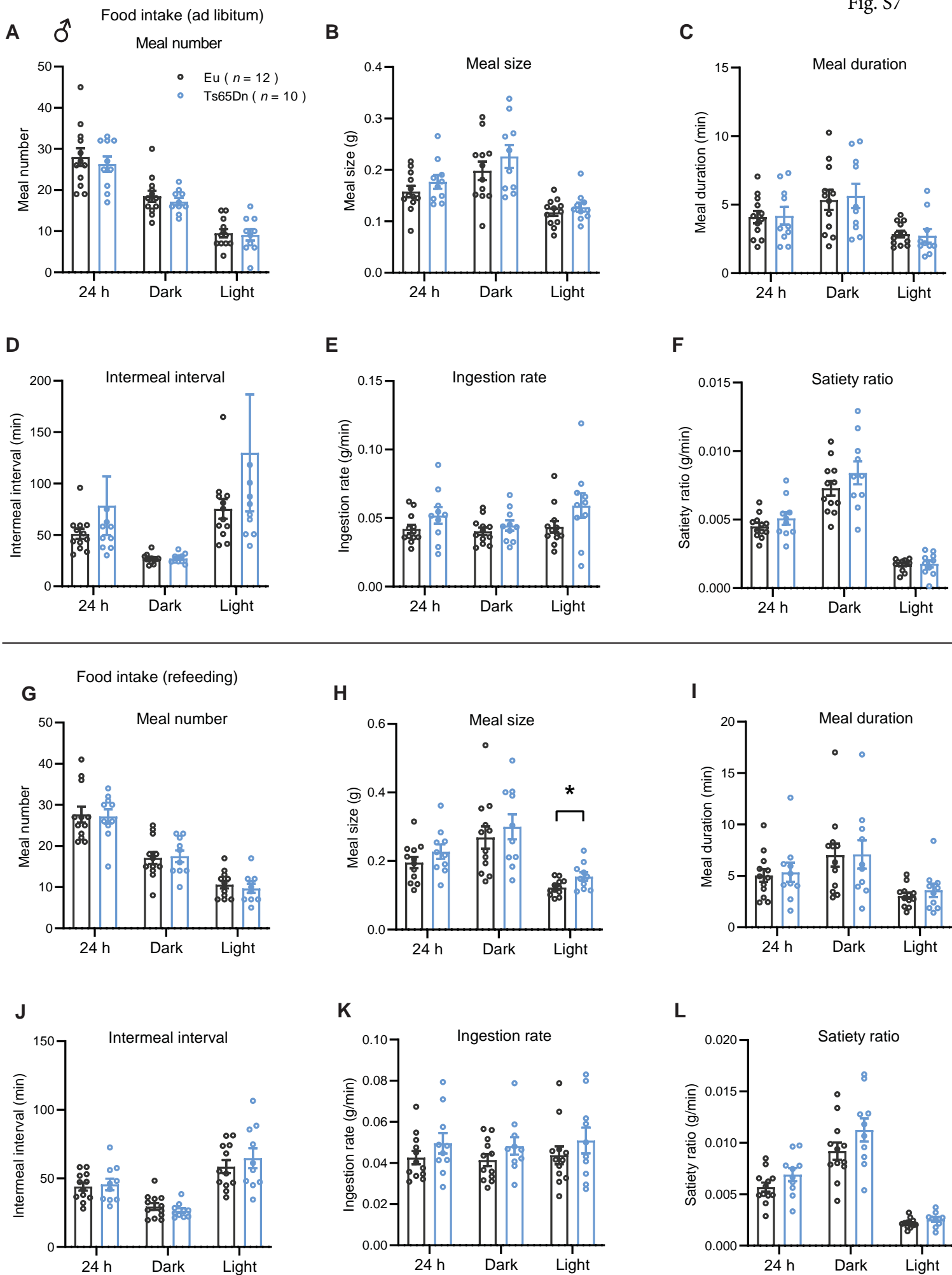


**Figure S5. Food intake, physical activity, and energy expenditure during the refeeding period in HFD-fed Ts65Dn mice.** A-C) Food intake (A), physical activity level (B), and energy expenditure (C) of male Ts65Dn and euploid mice across the circadian cycle during a 24 hr refeeding period after food deprivation. Bar graphs indicate cumulative food intake, physical activity, and energy expenditure in the dark and light photocycle. D-F) Food intake (D), physical activity level (E), and energy expenditure (F) of female Ts65Dn and euploid mice across the circadian cycle during a 24 hr refeeding period after food deprivation. Bar graphs indicate cumulative food intake, physical activity, and energy expenditure in the dark and light photocycle. All data are presented as mean  $\pm$  SEM. \*  $P < 0.05$ ; \*\*  $P < 0.01$

Fig. S6

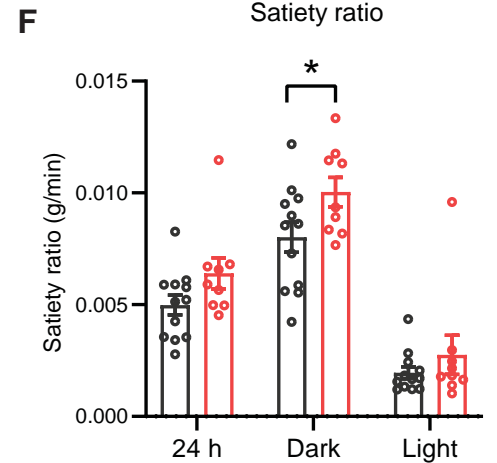
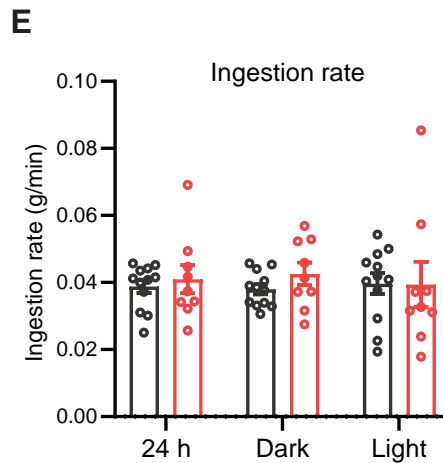
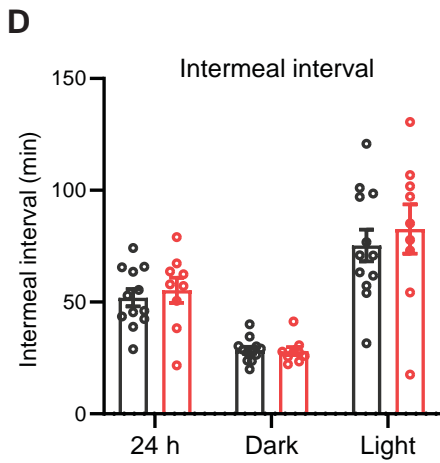
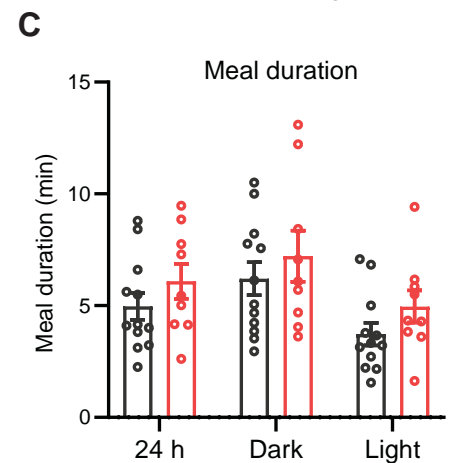
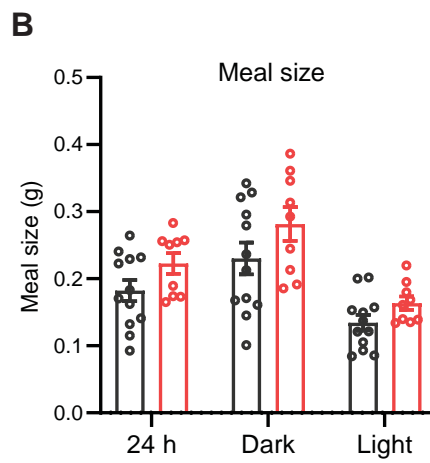
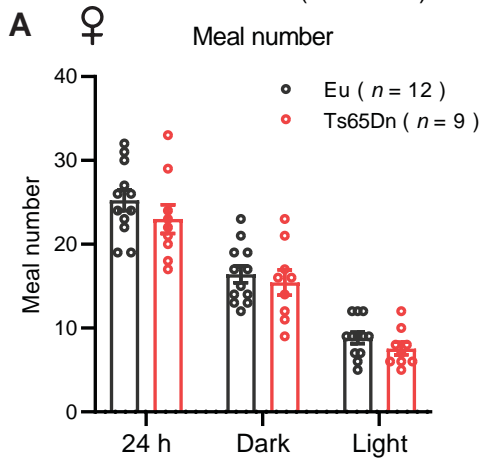


**Figure S6. Serum T3 and T4, and body temperature in HFD-fed Ts65Dn mice.** A-B) Serum T3 and T4 in male (A) and female (B) Ts65Dn and euploid mice. Sample size for male (Eu,  $n = 7-9$ ; Ts65Dn,  $n = 6-8$ ) and female (Eu,  $n = 7-8$ ; Ts65Dn,  $n = 9$ ). C-D) Deep colonic temperature in male (C) and female (D) Ts65Dn and euploid mice in the dark and light cycle. Sample size for male (Eu,  $n = 24$ ; Ts65Dn,  $n = 13$ ) and female (Eu,  $n = 16$ ; Ts65Dn,  $n = 12$ ) mice. All data are presented as mean  $\pm$  SEM.

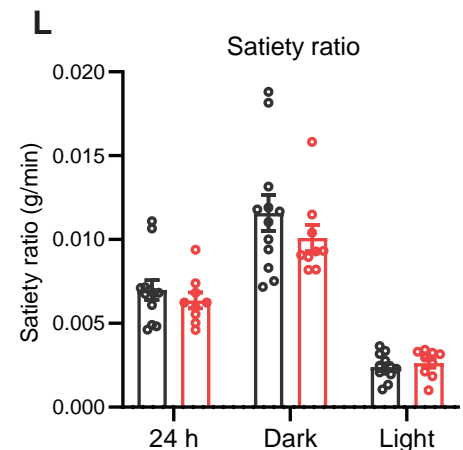
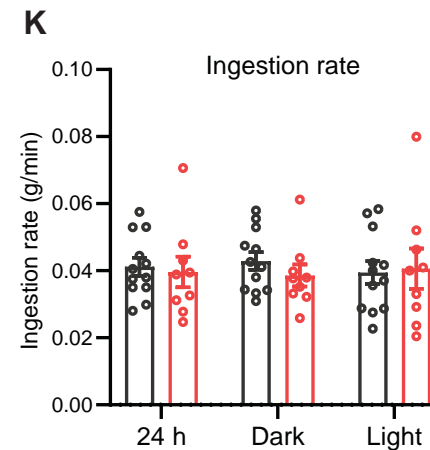
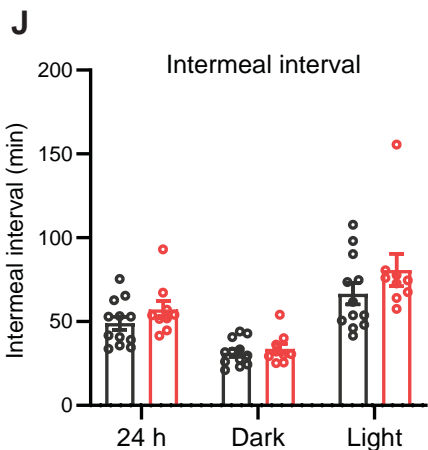
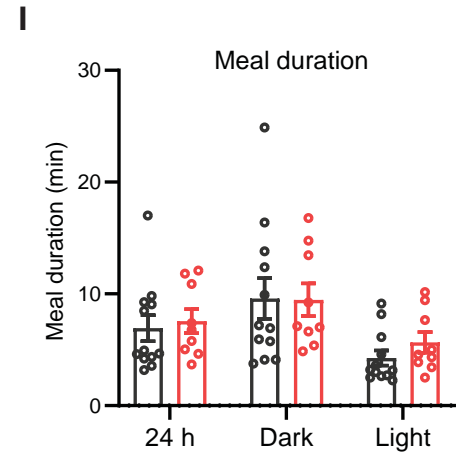
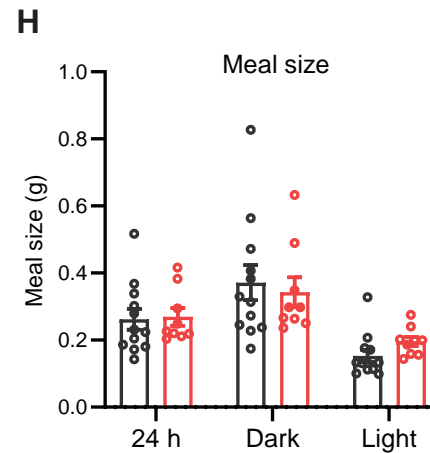
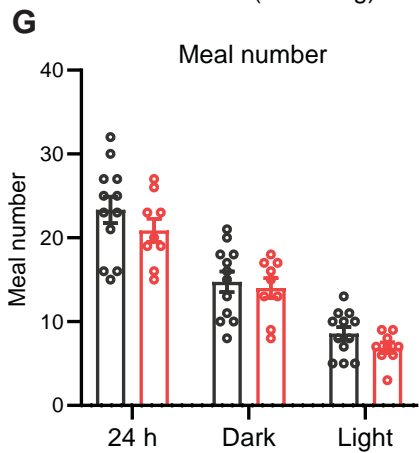


**Figure S7. Food intake pattern analysis in ad libitum fed and fasted-refed Ts65Dn male mice on a high-fat diet.** A-F) Meal number (A), meal size (B), meal duration (C), intermeal interval (D), ingestion rate (E), and satiety ratio (F) in male Ts65Dn and euploid mice during a 24-hr ad libitum fed period, with the light cycle, dark cycle, and 24-hr cumulative data presented. G-L) Meal number (G), meal size (H), meal duration (I), intermeal interval (J), ingestion rate (K), and satiety ratio (L) in male Ts65Dn and euploid mice during a 24-hr refeeding period after a fast, with the light cycle, dark cycle, and 24-hr cumulative data presented. All data are presented as mean  $\pm$  SEM. \*  $P < 0.05$

## Food intake (Ad libitum)



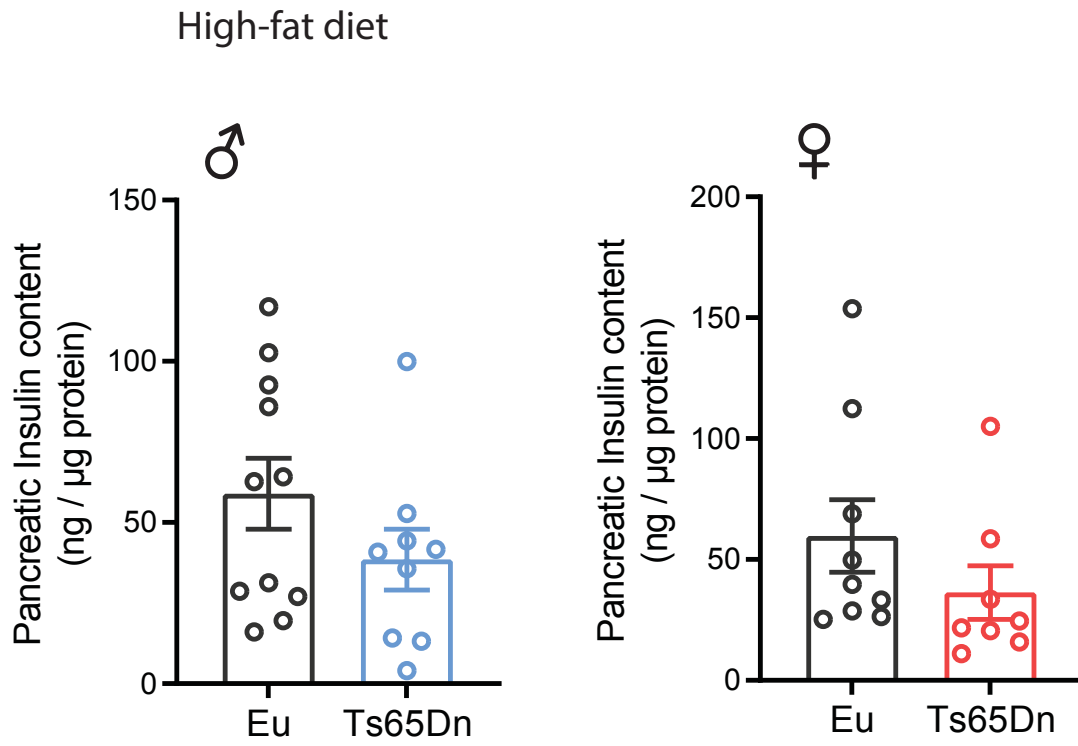
## Food intake (refeeding)



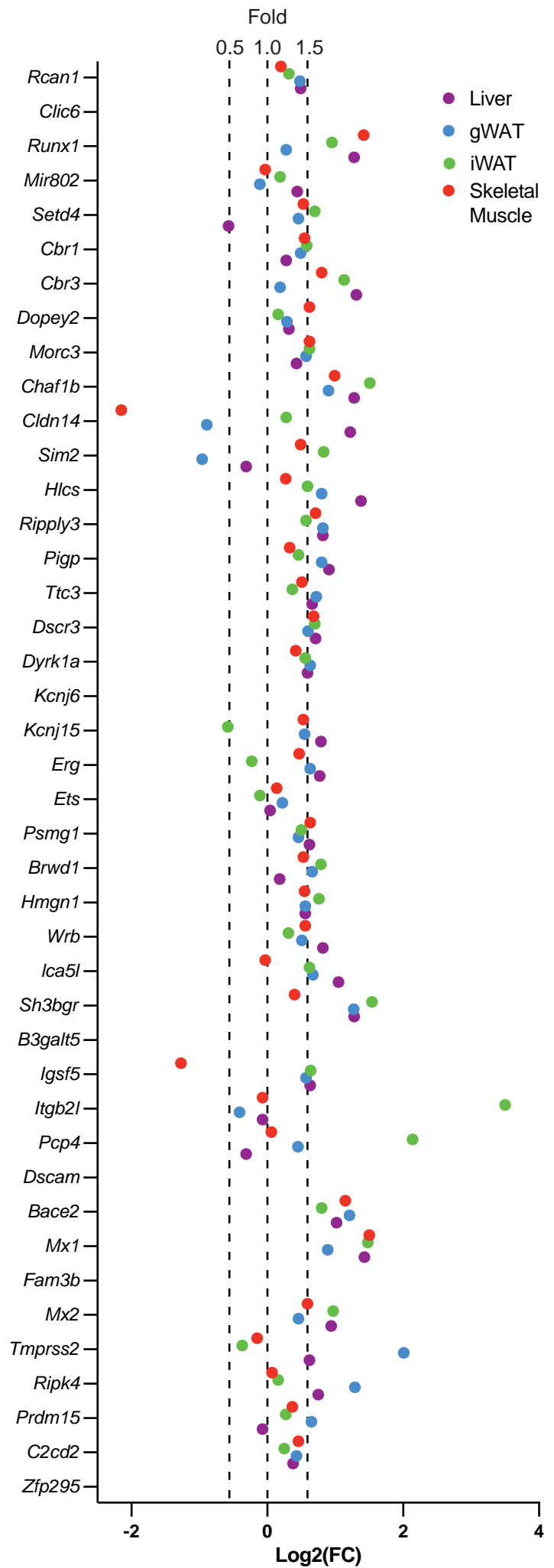
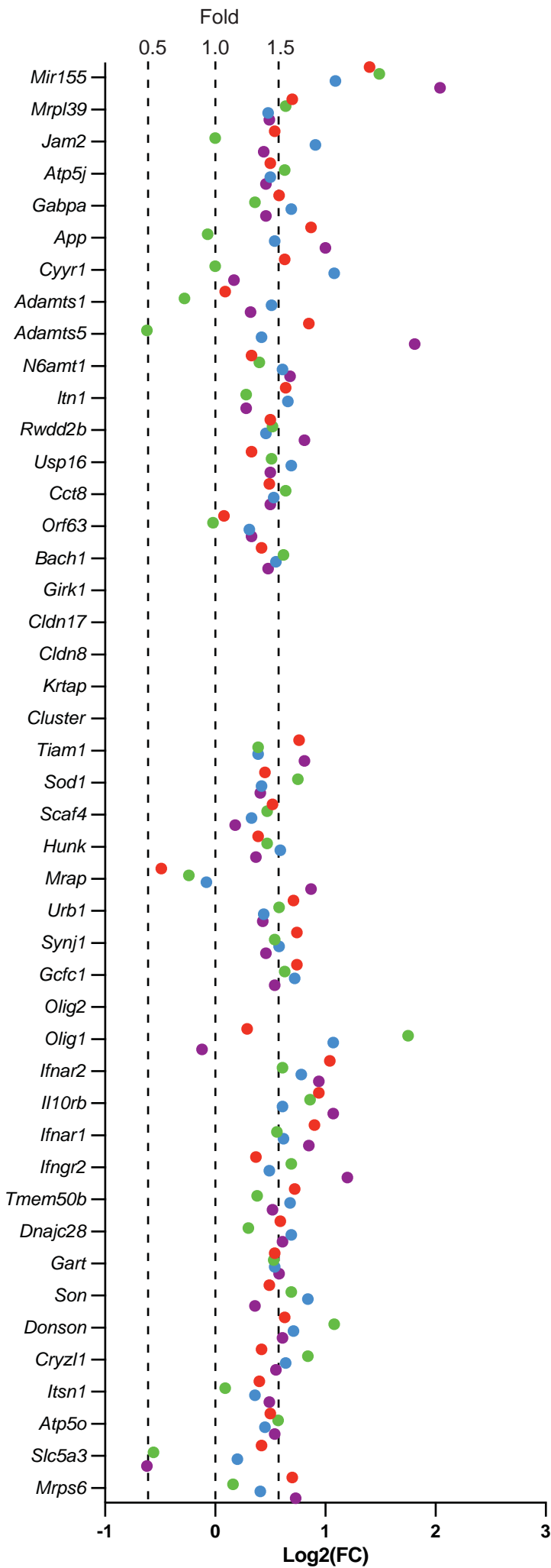
**Figure S8. Food intake pattern analysis in ad libitum fed and fasted-refed Ts65Dn female mice on a high-fat diet.** A-F) Meal number (A), meal size (B), meal duration (C), intermeal interval (D), ingestion rate (E), and satiety ratio (F) in female Ts65Dn and euploid mice during a 24-hr ad libitum fed period, with the light cycle, dark cycle, and 24-hr cumulative data presented. G-L) Meal number (G), meal size (H), meal duration (I), intermeal interval (J), ingestion rate (K), and satiety ratio (L) in female Ts65Dn and euploid mice during a 24-hr refeeding period after a fast, with the light cycle, dark cycle, and 24-hr cumulative data presented. All data are presented as mean  $\pm$  SEM.



Fig. S9

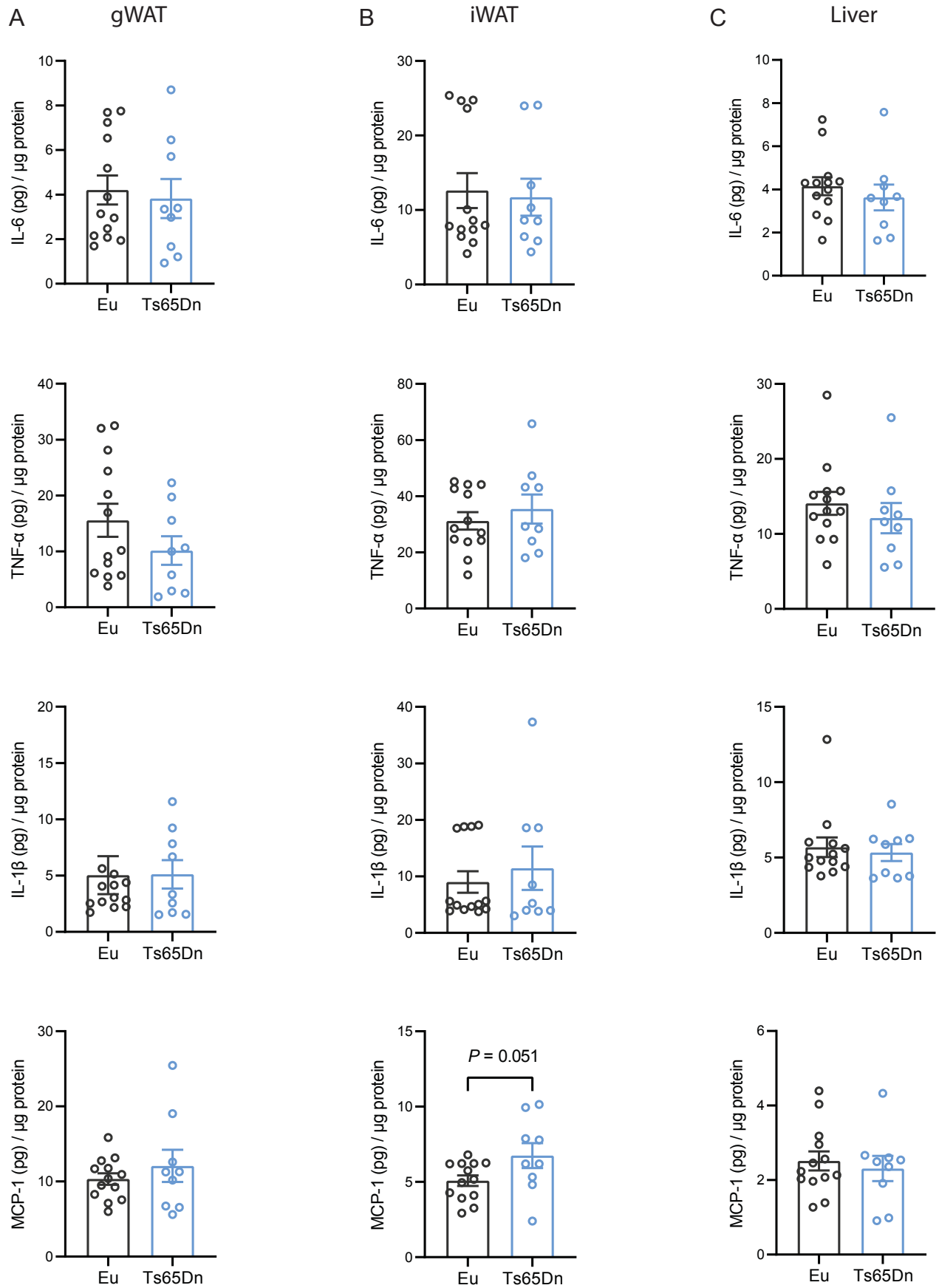


**Figure S9. Pancreatic insulin content of Ts65Dn and euploid mice on a high-fat diet.** A-B) Pancreatic insulin content in male (A) and female (B) Ts65Dn and euploid mice fed a high-fat diet. Sample size for male (Eu,  $n = 11$ ; Ts65Dn,  $n = 9$ ) and female (Eu,  $n = 9$ ; Ts65Dn,  $n = 8$ ) mice. All data are presented as mean  $\pm$  SEM.



**Figure S10. Expression of orthologous trisomic genes across tissues in Ts65Dn male mice.** Shown are the average expression value for all the orthologous 89 trisomic genes (excluding the *Krtap* gene cluster, of which none were detected) in the liver, gonadal white adipose tissue (gWAT), inguinal white adipose tissue (iWAT), and skeletal muscle of male Ts65Dn mice fed a high-fat diet. The expression of 12 genes (*Girk1*, *Cldn17*, *Cldn8*, *Olig2*, *Kcne2*, *Kcne1*, *Clic6*, *Kcnj6*, *B3galt5*, *Dscam*, *Fam3b*, *zfp295*) and the *Krtap* cluster genes were not detected by RNA-seq. The three dashed lines indicate fold expression value of 0.5, 1, and 1.5. Relative to the gene expression level in euploid, most of the trisomic genes have an average expression level close to the expected 1.5-fold due to increased gene dosage.

Fig. S11

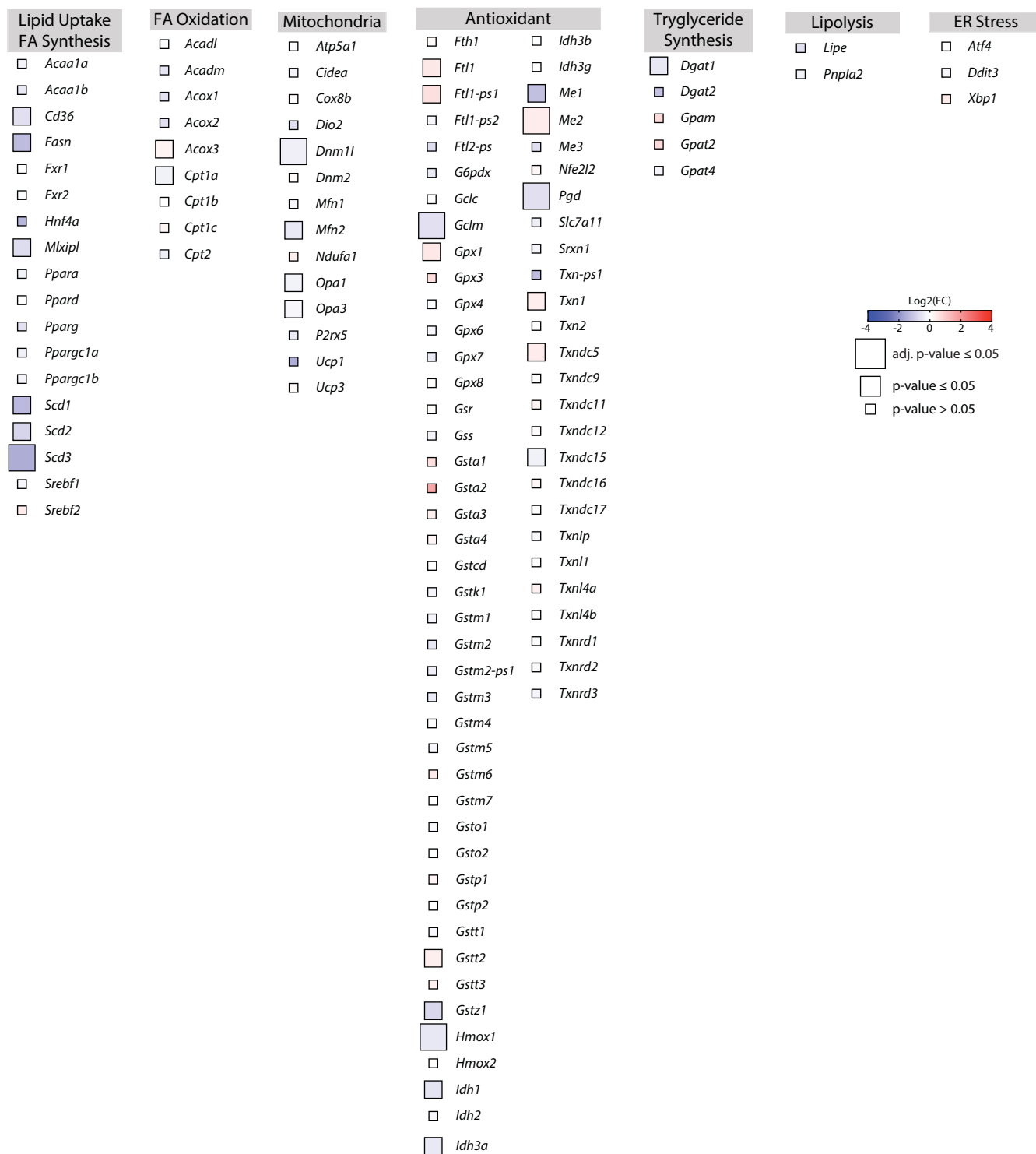


**Figure S11. Inflammatory cytokine levels in gWAT, iWAT, and liver were largely not different between Ts65Dn and euploid male mice fed a high-fat diet.** (A-C) ELISA measurements of IL-1 $\beta$ , IL-6, TNF- $\alpha$ , and MCP-1 levels in gWAT (A), iWAT (B), and liver (C) of Ts65Dn and euploid male mice fed a high-fat diet. gWAT, gonadal white adipose tissue; iWAT, inguinal white adipose tissue.

Euploid,  $n = 13$ ; Ts65Dn,  $n = 9$

Fig. S12

Inguinal White Adipose Tissue (iWAT)

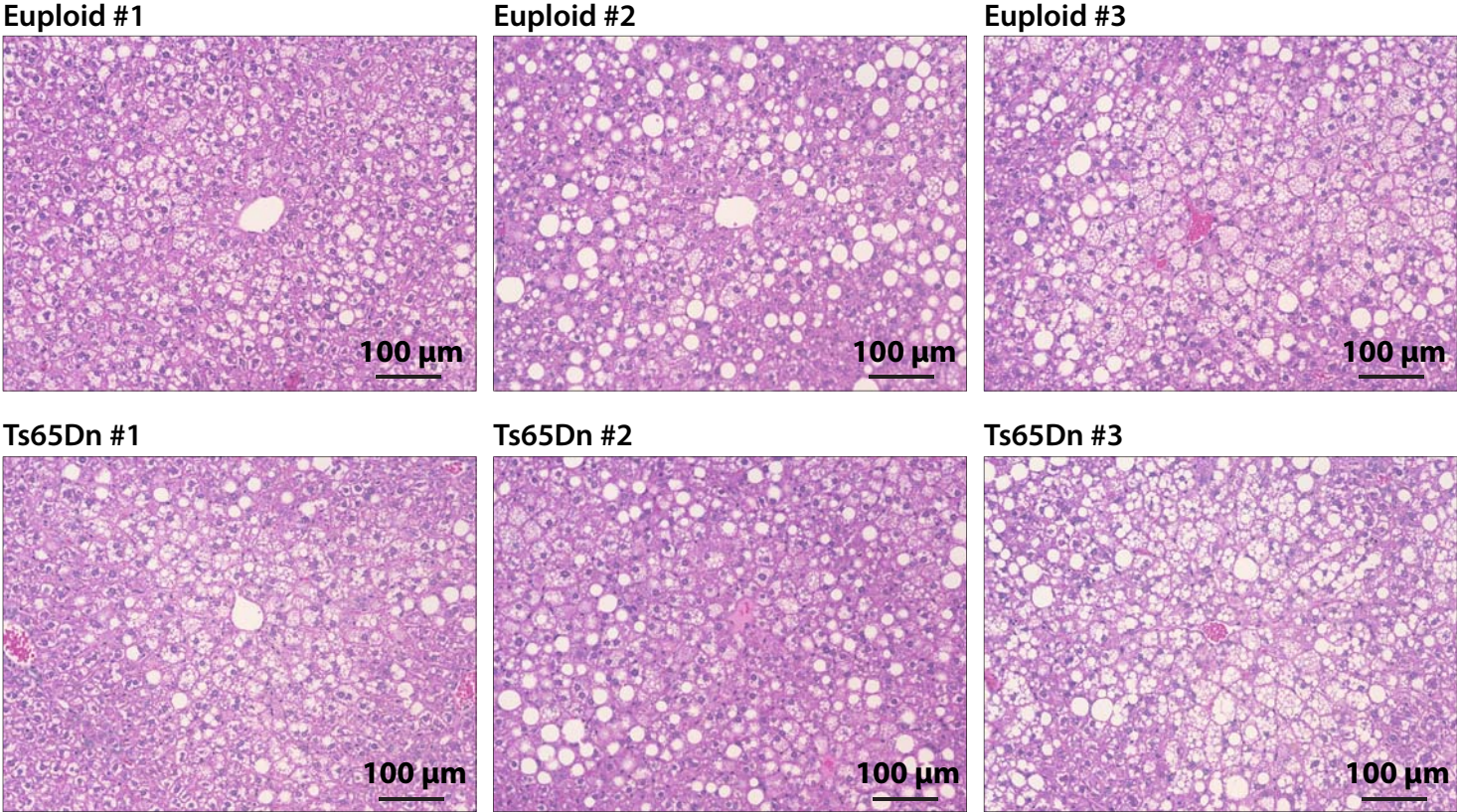


**Figure S12. Expression of metabolic, mitochondrial, ER stress, and antioxidant genes in the inguinal white adipose tissue (iWAT) of Ts65Dn and euploid male mice on a high-fat diet.** Heat maps of genes associated with lipid uptake and synthesis, fatty acid (FA) oxidation, mitochondrial dynamics and function, antioxidant, triglyceride synthesis, lipolysis, and endoplasmic reticulum (ER) stress in the iWAT of Ts65Dn and euploid male mice fed a high-fat diet. The size of the box indicates statistical significance in gene expression between male Ts65Dn mice relative to euploid controls. Full-size box denotes significantly different expression (adjusted  $p$ -value  $\leq 0.05$ ), medium size box denotes significantly different expression (non-adjusted  $p$ -value  $\leq 0.05$ ), and small box size denotes non-significant expression between genotypes ( $p$ -value  $> 0.05$ ). The color gradient indicates  $\text{Log}_2$  fold-change (FC) of each gene in Ts65Dn relative to euploid controls, with up-regulated genes in the red and down-regulated genes in the blue color spectrum. Tissue sample size for iWAT RNA sequencing (Euploid,  $n = 6$ ; Ts65Dn,  $n = 6$ ).

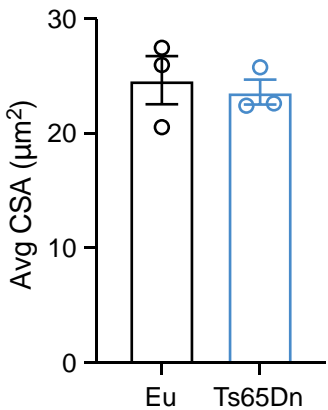


Fig. S13

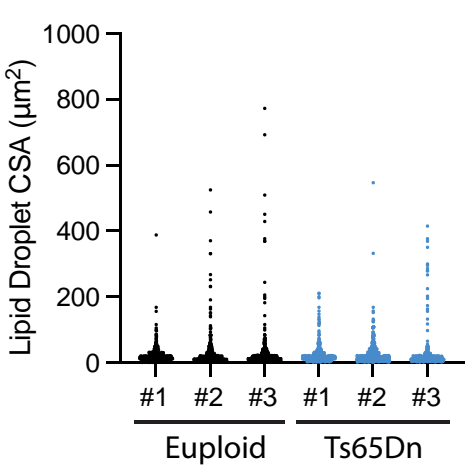
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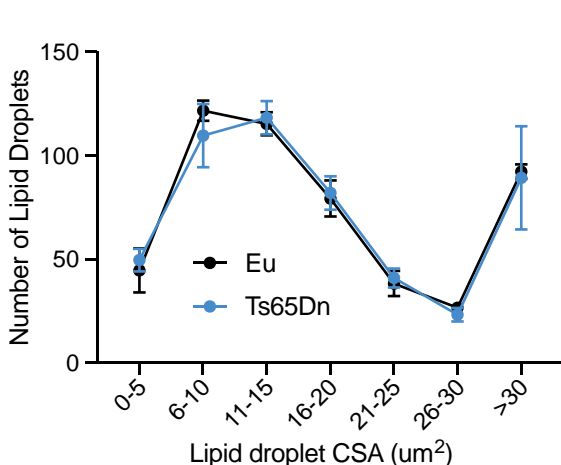
B



C

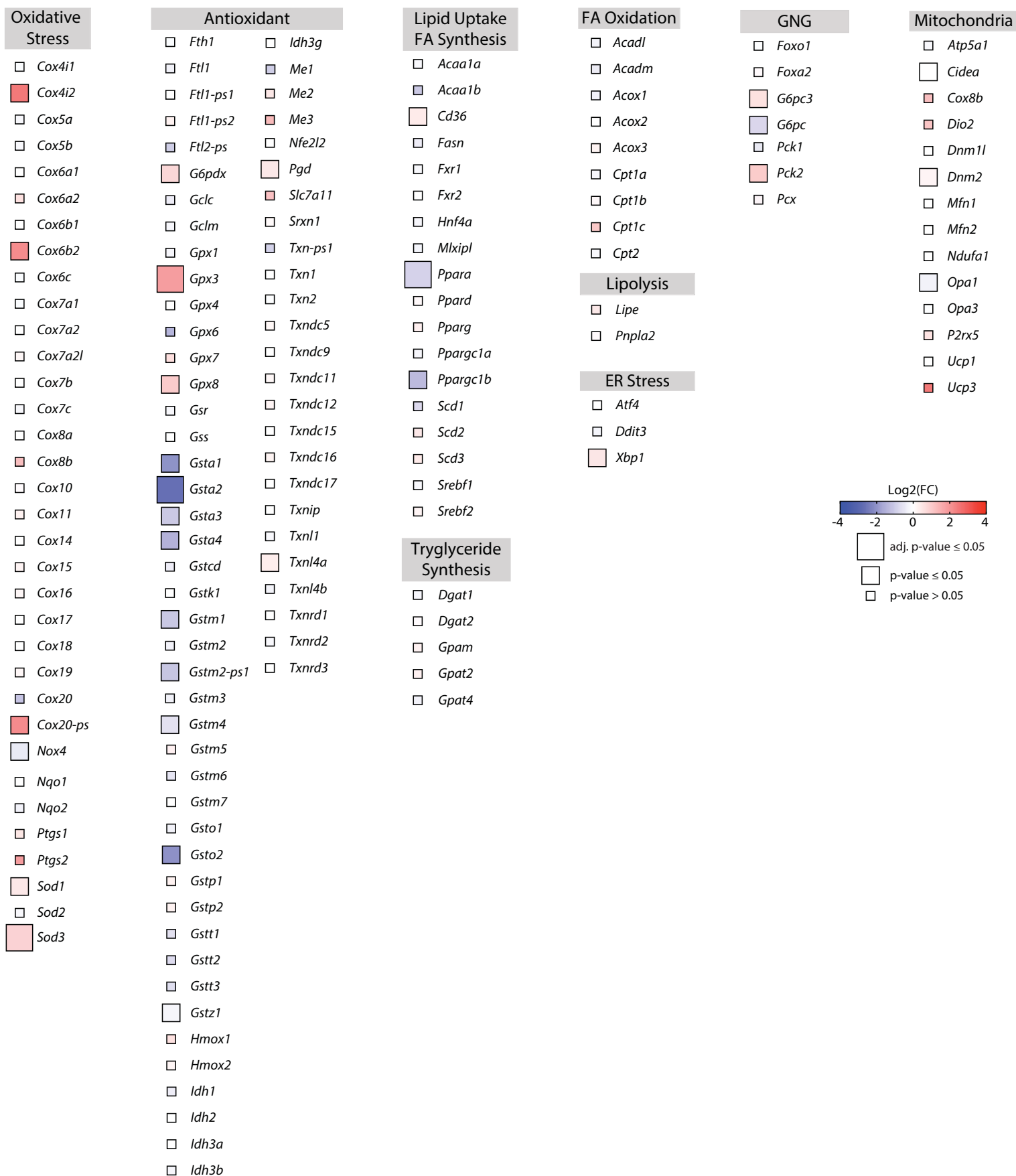


D

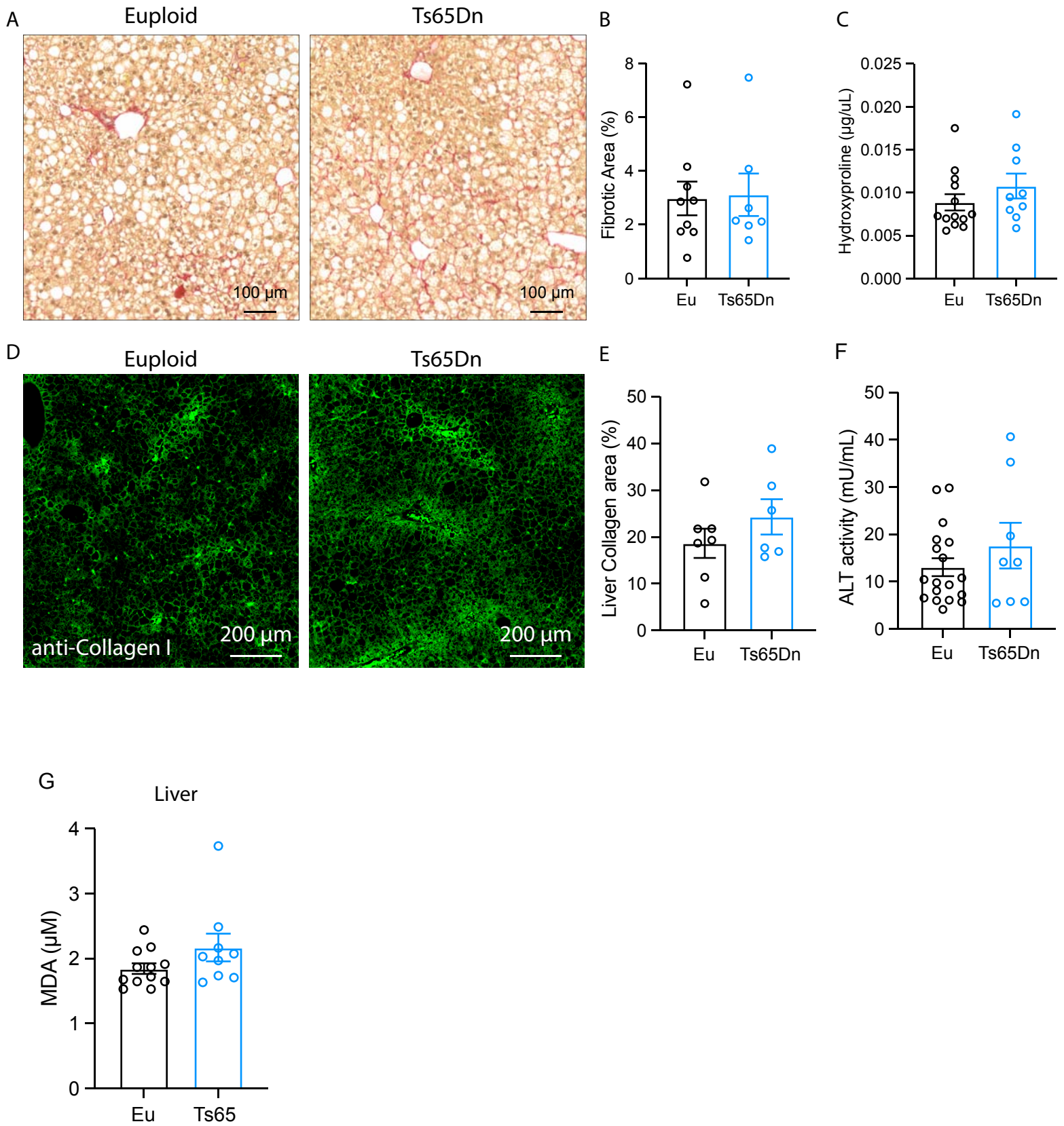


**Figure S13. Hepatic lipid droplet size was not significantly different between HFD-fed Ts65Dn and euploid male mice on a high-fat diet.** (A) Three randomly selected 20X images (200X magnification) of euploid and Ts65Dn mouse liver sections were used for quantification. (B) Average cross-sectional area (CSA) of lipid droplets was quantified. At least 500 lipid droplets were quantified per image. (C) Lipid droplet CSA spread by sample ( $n = 3$  per genotype; minimum 500 lipid droplets per sample). (D) Lipid droplet CSA distribution.

## Liver



**Figure S14. Expression of metabolic, mitochondrial, oxidative stress, ER stress, and antioxidant genes in the liver of Ts65Dn and euploid mice on a high-fat diet.** Heat maps of genes associated with oxidative stress, antioxidant, lipid uptake and synthesis, triglyceride synthesis, fatty acid (FA) oxidation, lipolysis, endoplasmic reticulum (ER) stress, gluconeogenesis (GNG), and mitochondrial dynamics and function in the liver of Ts65Dn and euploid male mice fed a high-fat diet. The size of the box indicates statistical significance in gene expression between male Ts65Dn mice relative to euploid controls. Full-size box denotes significantly different expression (adjusted  $p$ -value  $\leq 0.05$ ), medium size box denotes significantly different expression (non-adjusted  $p$ -value  $\leq 0.05$ ), and small box size denotes non-significant expression between genotypes ( $p$ -value  $> 0.05$ ). The color gradient indicates  $\text{Log}_2$  fold-change (FC) of each gene in Ts65Dn relative to euploid controls, with up-regulated genes in the red and down-regulated genes in the blue color spectrum. Tissue sample size for liver RNA sequencing (Euploid,  $n = 6$ ; Ts65Dn,  $n = 6$ ).



**Figure S15. Protein markers of fibrosis, oxidative stress, and liver damage were not significantly different between Ts65Dn and euploid male mice on a high-fat diet.** (A) Representative Sirius red-stained liver sections of Ts65Dn and euploid mice. (B) Quantification of % fibrotic area in the liver sections of Ts65Dn ( $n = 7$ ) and euploid ( $n = 9$ ) mice based on Sirius red staining. (C) Quantification of hydroxyproline levels in the liver of Ts65Dn ( $n = 9$ ) and euploid ( $n = 13$ ) mice. (D) Representative images of immunofluorescent staining of fibrotic collagen type I in the liver sections of Ts65Dn and euploid mice. (E) Quantification of total fluorescence (collagen type I positive) area as a percent of total liver area in Ts65Dn ( $n = 6$ ) and euploid ( $n = 7$ ) mice. (F) Quantification of serum alanine transaminase (ALT) levels, a marker of inflammation and liver damage, in Ts65Dn ( $n = 8$ ) and euploid ( $n = 18$ ) mice. (G) Quantification of malondialdehyde (MDA) levels (a marker of lipid peroxidation and oxidative stress) in Ts65Dn ( $n = 9$ ) and euploid ( $n = 12$ ) mice.

Table S1

Variable	Male			Female		
	Euploid	Ts65Dn	<i>P</i>	Euploid	Ts65Dn	<i>P</i>
N	13	9		10	9	
Body weight (g)	54.26 ± 1.43	44.26 ± 2.59	<b>0.001</b>	54.48 ± 2.16	50.66 ± 1.28	0.158
gonadal fat (gWAT, g)	0.699 ± 0.070	0.491 ± 0.052	<b>0.049</b>	2.895 ± 0.244	3.049 ± 0.242	0.661
% gWAT	1.287 ± 0.113	1.163 ± 0.134	0.496	5.28 ± 0.36	6.00 ± 0.42	0.216
inguinal fat (iWAT, g)	1.373 ± 0.071	0.774 ± 0.103	<b>&lt;0.0001</b>	1.742 ± 0.168	1.116 ± 0.044	<b>0.003</b>
% iWAT	2.532 ± 0.111	1.688 ± 0.177	<b>0.0004</b>	3.18 ± 0.26	2.20 ± 0.09	<b>0.003</b>
Liver (g)	2.352 ± 0.160	2.742 ± 0.350	0.275	1.455 ± 0.078	1.471 ± 0.105	0.903
% Liver weight	4.335 ± 0.262	6.080 ± 0.547	<b>0.004</b>	2.67 ± 0.11	2.90 ± 0.19	0.322
Heart weight (g)	0.229 ± 0.031	0.208 ± 0.027	0.651	0.143 ± 0.007	0.157 ± 0.004	0.125
% Heart weight	0.420 ± 0.053	0.471 ± 0.051	0.516	0.266 ± 0.017	0.312 ± 0.007	<b>0.037</b>
Kidney weight (g)	0.257 ± 0.013	0.265 ± 0.017	0.718	0.187 ± 0.005	0.204 ± 0.009	0.121
% Kidney weight	0.473 ± 0.016	0.607 ± 0.037	<b>0.001</b>	0.348 ± 0.016	0.404 ± 0.014	<b>0.021</b>
Pancreas weight (g)	0.453 ± 0.025	0.463 ± 0.064	0.878	0.343 ± 0.038	0.488 ± 0.040	<b>0.017</b>
% Pancreas weight	0.835 ± 0.037	1.041 ± 0.120	0.074	0.647 ± 0.084	0.966 ± 0.078	<b>0.013</b>
Spleen weight (g)	0.154 ± 0.011	0.227 ± 0.022	<b>0.004</b>	0.120 ± 0.013	0.183 ± 0.018	<b>0.013</b>
% Spleen weight	0.283 ± 0.016	0.553 ± 0.091	<b>0.002</b>	0.219 ± 0.024	0.357 ± 0.034	<b>0.003</b>
Tibia length (mm)	19.30 ± 0.106	18.81 ± 0.103	<b>0.005</b>	18.74 ± 0.159	18.90 ± 0.138	0.469

Gene Symbol	GencodeID	Liver		gWAT		iWAT		Skeletal Muscle	
		Log2(FC)	Adj.p-Value	Log2(FC)	Adj.p-Value	Log2(FC)	Adj.p-Value	Log2(FC)	Adj.p-Value
Mir155	ENSMUSG00000097418.7	2.04	0.256	1.09	0.724	1.49	0.067	1.40	0.742
Mirpl39	ENSMUSG00000022889.7	0.49	0.069	0.48	0.107	<b>0.64</b>	<b>0.008</b>	0.70	0.083
Jam2	ENSMUSG00000053062.15	0.44	0.390	0.91	0.476	0.00	0.999	0.54	0.122
Atp5j	ENSMUSG00000022890.13	0.46	0.057	<b>0.50</b>	<b>0.016</b>	<b>0.63</b>	<b>0.015</b>	0.50	0.166
Gabpa	ENSMUSG00000008976.16	<b>0.46</b>	<b>0.027</b>	<b>0.69</b>	<b>0.013</b>	<b>0.36</b>	<b>0.044</b>	0.58	0.083
App	ENSMUSG00000022892.10	<b>1.00</b>	<b>0.009</b>	0.54	0.055	-0.07	0.841	0.87	0.070
Cypr1	ENSMUSG00000041134.15	0.17	0.826	1.08	0.564	0.00	1.000	0.63	0.303
Adamts1	ENSMUSG00000022893.14	0.32	0.360	0.51	0.316	-0.28	0.489	0.09	0.954
Adamts5	ENSMUSG00000022894.5	<b>1.81</b>	<b>0.031</b>	0.42	0.706	-0.62	0.322	0.85	0.714
N6amt1	ENSMUSG00000044442.11	0.68	0.104	0.61	0.107	<b>0.40</b>	<b>0.042</b>	0.33	0.603
Iti1	ENSMUSG00000052299.8	0.28	0.233	<b>0.66</b>	<b>0.035</b>	0.28	0.103	0.64	0.070
Rwdd2b	ENSMUSG00000041079.11	<b>0.81</b>	<b>0.025</b>	0.46	0.643	<b>0.52</b>	<b>0.048</b>	0.50	0.671
Usp16	ENSMUSG00000025616.14	<b>0.50</b>	<b>0.037</b>	<b>0.69</b>	<b>0.011</b>	<b>0.51</b>	<b>0.007</b>	0.33	0.607
Cct8	ENSMUSG00000025613.13	<b>0.50</b>	<b>0.028</b>	0.53	0.212	<b>0.64</b>	<b>0.007</b>	0.49	0.076
Orf63	ENSMUSG00000025610.7	0.33	0.904	0.31	0.888	-0.02	0.993	0.08	0.988
Bach1	ENSMUSG00000025612.5	0.48	0.181	0.55	0.321	<b>0.62</b>	<b>0.029</b>	0.42	0.499
Girk1	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cldn17	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cldn8	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Krtap cluster	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tiam1	ENSMUSG00000002489.15	0.81	0.385	0.39	0.719	<b>0.39</b>	<b>0.022</b>	0.76	0.728
Sod1	ENSMUSG00000022982.9	0.41	0.267	0.42	0.481	<b>0.75</b>	<b>0.028</b>	0.45	0.486
Scaf4	ENSMUSG00000022983.15	0.18	0.457	0.33	0.336	<b>0.47</b>	<b>0.043</b>	0.52	0.176
Hunk	ENSMUSG00000053414.7	0.37	0.624	0.59	0.819	0.47	0.546	0.39	0.886
Mrap	ENSMUSG00000039956.8	<b>0.87</b>	<b>0.026</b>	-0.08	0.963	-0.24	0.766	-0.49	0.985
Urb1	ENSMUSG00000039929.14	0.43	0.134	0.44	0.525	<b>0.58</b>	<b>0.021</b>	0.71	0.122
Synj1	ENSMUSG00000022973.17	0.46	0.086	0.58	0.055	0.54	0.059	0.74	0.165
Gcfc1	ENSMUSG00000022974.12	0.54	0.067	<b>0.72</b>	<b>0.026</b>	<b>0.63</b>	<b>0.010</b>	0.74	0.070
Olig2	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Olig1	ENSMUSG00000046160.6	-0.12	0.950	1.07	0.825	1.75	0.174	0.29	0.985
Ifnar2	ENSMUSG00000022971.18	<b>0.94</b>	<b>0.021</b>	<b>0.78</b>	<b>0.011</b>	<b>0.61</b>	<b>0.005</b>	1.04	0.438
Il1orb	ENSMUSG00000022969.13	<b>1.07</b>	<b>0.042</b>	0.61	0.212	<b>0.86</b>	<b>0.008</b>	0.94	0.407
Ifnar1	ENSMUSG00000022967.12	<b>0.85</b>	<b>0.023</b>	<b>0.62</b>	<b>0.011</b>	<b>0.56</b>	<b>0.020</b>	0.90	0.110
Ifngr2	ENSMUSG00000022965.7	<b>1.20</b>	<b>0.028</b>	0.49	0.085	<b>0.69</b>	<b>0.015</b>	0.37	0.311
Tmem50b	ENSMUSG00000022964.14	0.52	0.203	0.68	0.078	<b>0.38</b>	<b>0.034</b>	0.72	0.070
Dnajc28	ENSMUSG00000039763.9	<b>0.61</b>	<b>0.044</b>	0.69	0.525	0.30	0.524	0.59	0.433
Gart	ENSMUSG00000022962.14	0.58	0.064	0.54	0.055	<b>0.53</b>	<b>0.007</b>	0.54	0.087
Son	ENSMUSG00000022961.17	0.36	0.054	<b>0.84</b>	<b>0.011</b>	<b>0.69</b>	<b>0.007</b>	0.49	0.083
Donson	ENSMUSG00000022960.12	0.61	0.111	0.71	0.469	<b>1.08</b>	<b>0.003</b>	0.63	0.715
Cryz11	ENSMUSG00000058240.13	<b>0.55</b>	<b>0.029</b>	<b>0.64</b>	<b>0.011</b>	<b>0.84</b>	<b>0.008</b>	0.42	0.328
Itsn1	ENSMUSG00000022957.19	0.49	0.195	0.36	0.277	0.09	0.811	0.40	0.189
Atp5o	ENSMUSG00000022956.10	0.54	0.053	0.45	0.138	<b>0.57</b>	<b>0.034</b>	0.50	0.122
Slc5a3	ENSMUSG00000089774.2	-0.62	0.193	0.20	0.887	-0.56	0.196	0.42	0.878
Mrsp6	ENSMUSG00000039680.9	<b>0.73</b>	<b>0.026</b>	0.41	0.525	0.16	0.647	0.70	0.596
Kcne2	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kcne1	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Rcan1	ENSMUSG00000022951.15	0.49	0.352	0.48	0.292	0.32	0.195	0.20	0.926
Clic6	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Runx1	ENSMUSG00000022952.16	1.28	0.381	0.28	0.662	0.95	0.069	1.42	0.346
Mir802	ENSMUSG00000076457.1	0.44	0.877	-0.11	0.953	0.19	0.751	-0.03	0.988
Setd4	ENSMUSG00000022948.14	-0.57	0.320	0.46	0.539	0.70	0.083	0.53	0.594
Cbr1	ENSMUSG00000051483.8	0.28	0.503	0.49	0.055	0.58	0.051	0.55	0.087
Cbr3	ENSMUSG00000022947.7	1.31	0.117	0.19	0.931	<b>1.13</b>	<b>0.028</b>	0.80	0.709
Dopey2	ENSMUSG00000022946.8	0.32	0.410	0.29	0.614	0.16	0.306	0.62	0.303
Morc3	ENSMUSG00000039456.9	0.43	0.283	<b>0.57</b>	<b>0.016</b>	<b>0.62</b>	<b>0.040</b>	0.62	0.070
Chaf1b	ENSMUSG00000022945.11	1.28	0.209	0.90	0.212	<b>1.51</b>	<b>0.005</b>	0.99	0.660
Cldn14	ENSMUSG00000047109.12	<b>1.22</b>	<b>0.038</b>	-0.89	0.774	0.28	0.758	-2.15	0.594
Sim2	ENSMUSG00000062713.7	-0.31	0.805	-0.96	0.820	0.83	0.601	0.49	0.720
Hlcs	ENSMUSG00000040820.15	<b>1.38</b>	<b>0.022</b>	0.80	0.321	<b>0.59</b>	<b>0.005</b>	0.27	0.660
Ripply3	ENSMUSG00000022941.8	0.82	0.368	0.82	0.557	0.57	0.085	0.71	0.584
Pigp	ENSMUSG00000022940.16	<b>0.91</b>	<b>0.016</b>	0.80	0.082	<b>0.46</b>	<b>0.049</b>	0.33	0.535
Ttc3	ENSMUSG00000040785.18	<b>0.66</b>	<b>0.029</b>	<b>0.72</b>	<b>0.026</b>	0.37	0.065	0.51	0.311
Dscr3	ENSMUSG00000022898.12	<b>0.71</b>	<b>0.030</b>	0.60	0.078	<b>0.70</b>	<b>0.007</b>	0.68	0.083
Dyrk1a	ENSMUSG00000022897.14	<b>0.59</b>	<b>0.038</b>	0.63	0.066	<b>0.56</b>	<b>0.009</b>	0.42	0.607
Kcnj6	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kcnj15	ENSMUSG00000062609.13	0.79	0.713	0.55	0.818	-0.58	0.376	0.53	0.937
Erg	ENSMUSG00000040732.18	0.77	0.245	0.63	0.745	-0.23	0.603	0.47	0.590
Ets	ENSMUSG00000032035.15	0.04	0.950	0.22	0.814	-0.11	0.858	0.14	0.941
Psmg1	ENSMUSG00000022913.14	<b>0.62</b>	<b>0.031</b>	0.46	0.447	0.50	0.052	0.63	0.445
Brwd1	ENSMUSG00000022914.15	0.18	0.477	<b>0.66</b>	<b>0.011</b>	<b>0.79</b>	<b>0.016</b>	0.53	0.087
Hmgn1	ENSMUSG00000040681.14	<b>0.56</b>	<b>0.026</b>	0.56	0.218	<b>0.76</b>	<b>0.002</b>	0.55	0.146
Wrb	ENSMUSG00000023147.15	0.82	0.151	0.51	0.344	0.31	0.115	0.56	0.504
Ica5l	ENSMUSG00000045275.15	1.05	0.740	0.67	0.586	0.62	0.455	-0.03	0.988
Sh3bgr	ENSMUSG00000040666.17	1.28	0.360	1.27	0.767	1.54	0.195	0.40	0.685
B3galt5	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Igsf5	ENSMUSG00000000159.15	<b>0.63</b>	<b>0.025</b>	0.57	0.949	0.64	0.577	-1.27	0.762
Irgb2l	ENSMUSG00000000157.15	-0.07	0.929	-0.41	0.964	3.50	0.097	-0.07	0.988
Pcp4	ENSMUSG00000090223.1	-0.31	0.805	0.45	0.953	2.14	0.064	0.06	0.991
Dscam	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bace2	ENSMUSG00000040605.6	1.02	0.105	1.21	0.122	<b>0.80</b>	<b>0.026</b>	1.15	0.579
Mx1	ENSMUSG00000000386.14	<b>1.43</b>	<b>0.040</b>	0.89	0.662	1.48	0.125	1.50	0.760
Fam3b	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mx2	ENSMUSG00000023341.14	0.94	0.120	0.46	0.779	0.97	0.248	0.59	0.803
Tmprss2	ENSMUSG00000000385.7	0.62	0.553	2.01	0.828	-0.37	0.734	-0.15	0.988
Ripk4	ENSMUSG00000005251.14	0.75	0.160	1.29	0.796	0.16	0.892	0.07	0.988
Prdm15	ENSMUSG00000014039.17	-0.07	0.921	0.65	0.311	0.27	0.359	0.37	0.535
C2cd2	ENSMUSG00000045975.7	<b>0.38</b>	<b>0.035</b>	0.43	0.602	0.25	0.172	0.46	0.600
Zfp295	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

ND = not detected  
N/A = not applicable



**Table S3. All triplicated protein-coding genes on Mmu17 not related to Hsa21.**

Gene Symbol	GencodeID	Liver		gWAT		iWAT		Skeletal Muscle	
		Log2(FC)	Adj.p-Value	Log2(FC)	Adj.p-Value	Log2(FC)	Adj.p-Value	Log2(FC)	Adj.p-Value
<i>Scaf8</i>	ENSMUSG00000046201.8	<b>0.57</b>	<b>0.0466</b>	<b>0.62</b>	<b>0.0111</b>	<b>0.52</b>	<b>0.0152</b>	0.33	0.4072
<i>Tiam2</i>	ENSMUSG00000023800.14	0.10	0.8411	1.01	0.2605	<b>1.01</b>	<b>0.0433</b>	0.87	0.3424
<i>Tfb1m</i>	ENSMUSG00000036983.6	0.54	0.0840	0.44	0.5973	<b>0.71</b>	<b>0.0163</b>	0.35	0.6355
<i>Cldn20</i>	ENSMUSG00000091530.1	0.22	0.9496	0.72	0.8296	1.58	0.1323	-0.08	0.9876
<i>Nox3</i>	ENSMUSG00000023802	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Arid1b</i>	ENSMUSG00000069729.13	<b>0.47</b>	<b>0.0439</b>	0.53	0.0911	0.35	0.0633	0.48	0.5838
<i>Tmem242</i>	ENSMUSG0000004945.15	<b>0.73</b>	<b>0.0145</b>	<b>0.60</b>	<b>0.0111</b>	<b>0.65</b>	<b>0.0220</b>	0.55	0.0874
<i>ldhal6b</i>	ENSMUSG00000101959	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Zdhhc14</i>	ENSMUSG00000034265.7	0.59	0.1511	0.33	0.5369	<b>0.78</b>	<b>0.0236</b>	0.66	0.4989
<i>Srx9</i>	ENSMUSG00000002365.9	<b>0.66</b>	<b>0.0210</b>	<b>0.63</b>	<b>0.0111</b>	<b>0.42</b>	<b>0.0381</b>	0.46	0.1218
<i>Synj2</i>	ENSMUSG00000023805.16	1.15	0.0323	0.63	0.0850	0.44	0.1436	0.88	0.2001
<i>Serac1</i>	ENSMUSG00000015659.12	0.32	0.4935	0.68	0.2406	0.17	0.4690	0.55	0.0874
<i>Gtf2h5</i>	ENSMUSG00000034345.14	<b>0.82</b>	<b>0.0091</b>	0.38	0.2183	0.30	0.2091	0.41	0.4806
<i>Tulp4</i>	ENSMUSG00000034377.10	0.01	0.9695	0.39	0.5935	0.22	0.2479	0.41	0.5325
<i>Tmem181a</i>	ENSMUSG00000038141.9	0.48	0.2709	0.26	0.5568	0.42	0.0787	0.52	0.4755
<i>Dynl1a</i>	ENSMUSG00000092074.1	0.96	0.7126	0.93	0.5973	<b>1.46</b>	<b>0.0391</b>	1.48	0.5905
<i>Dynl1b</i>	ENSMUSG00000096255.1	1.23	0.2239	0.59	0.7519	<b>1.29</b>	<b>0.0169</b>	0.66	0.7733
<i>Dynl1c</i>	ENSMUSG00000000579.14	0.34	0.6416	0.65	0.5973	<b>0.99</b>	<b>0.0059</b>	0.60	0.6773
<i>Dynl1f</i>	ENSMUSG00000095677.1	1.23	0.1539	0.60	0.3274	<b>0.90</b>	<b>0.0433</b>	0.66	0.4788
<i>Sytl3</i>	ENSMUSG00000041831.15	2.17	0.2578	1.11	0.6458	<b>1.04</b>	<b>0.0310</b>	-0.26	0.9876
<i>Ezr</i>	ENSMUSG00000052397.8	<b>1.74</b>	<b>0.0260</b>	0.70	0.3358	<b>1.25</b>	<b>0.0381</b>	1.12	0.5838
<i>Rsph3b</i>	ENSMUSG00000023806.9	0.44	0.1780	0.27	0.6011	0.70	0.0651	0.43	0.5353
<i>Tagap1</i>	ENSMUSG00000052031.7	<b>0.75</b>	<b>0.0226</b>	0.68	0.0958	<b>0.79</b>	<b>0.0256</b>	0.12	0.8956
<i>Rnaset2b</i>	ENSMUSG00000094724.7	0.62	0.0609	0.46	0.5092	<b>0.90</b>	<b>0.0085</b>	0.32	0.7116
<i>Gm1604b</i>	ENSMUSG00000094083	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Rps6ka2</i>	ENSMUSG00000023809.9	-0.05	0.9639	0.38	0.7502	0.35	0.1843	0.27	0.7302
<i>Tcp10a</i>	ENSMUSG00000071322	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Till2</i>	ENSMUSG00000079722	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Gm9992</i>	ENSMUSG00000056133.4	-0.01	0.9930	0.93	0.8792	1.18	0.4625	0.98	0.8422
<i>Fndc1</i>	ENSMUSG00000071984.10	0.50	0.8779	0.76	0.6706	-0.03	0.9746	0.48	0.8344
<i>Tagap</i>	ENSMUSG00000033450.7	1.23	0.1532	1.20	0.2046	<b>1.63</b>	<b>0.0378</b>	0.82	0.6027
<i>Rsph3a</i>	ENSMUSG00000073471.2	<b>0.97</b>	<b>0.0297</b>	0.74	0.3822	0.62	0.0744	0.46	0.7015
<i>Rnaset2a</i>	ENSMUSG00000095687.1	<b>0.78</b>	<b>0.0287</b>	0.72	0.2406	<b>1.02</b>	<b>0.0051</b>	0.72	0.4465
<i>Ccr6</i>	ENSMUSG00000040899.13	1.43	0.5012	2.42	0.6137	2.93	0.2189	1.51	0.7309
<i>Mpc1</i>	ENSMUSG00000023861.17	-0.07	0.8854	-0.09	0.9302	0.28	0.2456	0.48	0.1218
<i>Sft2d1</i>	ENSMUSG00000073468.11	<b>0.42</b>	<b>0.0468</b>	0.35	0.5973	<b>0.82</b>	<b>0.0014</b>	0.58	0.5071
<i>Prr18</i>	ENSMUSG00000055945.7	0.30	0.7086	0.94	0.6920	1.08	0.3805	1.43	0.7284
<i>T2</i>	ENSMUSG00000058159	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>T</i>	ENSMUSG00000062327	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Pde10a</i>	ENSMUSG00000023868.15	2.02	0.0997	0.35	0.6980	0.23	0.6781	0.60	0.6355
<i>1700010114Rik</i>	ENSMUSG00000023873.12	1.42	0.2880	0.37	0.8060	1.07	0.1028	1.09	0.7518

Table S4

Up-regulated DEGs in gonadal white adipose tissue (gWAT)

Gene Symbol	Log2(FC)	Adj.p-Value	Gene Type	GencodeID	EntrezID
Xlr4c	2.17	0.013	protein_coding	ENSMUSG00000031362.17	72891
Son	0.84	0.011	protein_coding	ENSMUSG00000022961.17	20658
Ifnar2	0.78	0.011	protein_coding	ENSMUSG00000022971.18	15976
Ttc3	0.72	0.026	protein_coding	ENSMUSG00000040785.18	22129
Paxbp1	0.72	0.026	protein_coding	ENSMUSG00000022974.12	67367
Gabpa	0.69	0.013	protein_coding	ENSMUSG00000008976.16	14390
Usp16	0.69	0.011	protein_coding	ENSMUSG00000025616.14	74112
Ltn1	0.66	0.035	protein_coding	ENSMUSG00000052299.8	78913
Brwd1	0.66	0.011	protein_coding	ENSMUSG00000022914.15	93871
Cryz11	0.64	0.011	protein_coding	ENSMUSG00000058240.13	66609
Snx9	0.63	0.011	protein_coding	ENSMUSG00000002365.9	66616
Ifnar1	0.62	0.011	protein_coding	ENSMUSG00000022967.12	15975
Scaf8	0.62	0.011	protein_coding	ENSMUSG00000046201.8	106583
Tmem242	0.60	0.011	protein_coding	ENSMUSG00000004945.15	70544
Morc3	0.57	0.016	protein_coding	ENSMUSG00000039456.9	338467

gWAT down-regulated DEGs

Gene Symbol	Log2(FC)	Adj.p-Value	Gene Type	GencodeID	EntrezID
Rn18s-rs5	-1.44	0.035	rRNA	ENSMUSG00000106106.2	NA

Table S5

Up-regulated DEGs in inguinal white adipose tissue (IWAT)

Gene Symbol	Log2(FC)	Adj.p-Value	Gene Type	GeneID	EntrezID
Igh1	9.13	0.001	IG_C_gene	ENSMUSG0000076614.7	NA
Igh2b	7.32	0.002	IG_C_gene	ENSMUSG0000076613.3	NA
Igh2c	7.21	0.005	IG_C_gene	ENSMUSG0000076612.7	NA
Igkv5-43	6.34	0.019	IG_V_gene	ENSMUSG0000094433.2	NA
Ighv5-6	5.99	0.002	IG_V_gene	ENSMUSG0000094951.1	NA
Sipi	5.70	0.007	protein_coding	ENSMUSG0000017002.14	20568
Igkv15-103	5.70	0.004	IG_V_gene	ENSMUSG0000076523.2	NA
Ighv9-3	5.51	0.007	IG_V_gene	ENSMUSG0000096459.1	NA
Igkv4-63	5.49	0.008	IG_V_gene	ENSMUSG0000076550.3	NA
Ighv5-4	5.48	0.008	IG_V_gene	ENSMUSG0000095612.2	NA
Igkv12-46	5.46	0.001	IG_V_gene	ENSMUSG0000076564.2	NA
Igkv6-14	5.45	0.005	IG_V_gene	ENSMUSG0000096844.1	NA
Igh3	5.43	0.026	IG_C_gene	ENSMUSG0000076615.3	NA
Igkv3-12	5.42	0.001	IG_V_gene	ENSMUSG0000094117.1	NA
Igkv5-48	5.35	0.005	IG_V_gene	ENSMUSG0000076562.2	NA
Ighv1-78	5.07	0.021	IG_V_gene	ENSMUSG0000096326.2	NA
Ighv1-82	5.00	0.005	IG_V_gene	ENSMUSG0000095127.2	NA
Ighv2-9-1	4.99	0.038	IG_V_gene	ENSMUSG0000095565.2	NA
Ighv1-7	4.95	0.010	IG_V_gene	ENSMUSG0000095200.2	NA
Igkv4-55	4.84	0.017	IG_V_gene	ENSMUSG0000096832.2	NA
Iglc1	4.81	0.002	IG_C_gene	ENSMUSG00000105906.1	NA
Iglv1	4.80	0.001	IG_V_gene	ENSMUSG0000076934.2	NA
Igkv9-124	4.80	0.017	IG_V_gene	ENSMUSG0000096632.2	NA
Igkv17-121	4.79	0.032	IG_V_gene	ENSMUSG0000076514.3	NA
Ighv1-26	4.73	0.013	IG_V_gene	ENSMUSG0000094542.1	NA
Jchain	4.73	0.007	protein_coding	ENSMUSG0000067149.6	16069
Igkv6-15	4.72	0.028	IG_V_gene	ENSMUSG0000094977.1	NA
Igkv4-72	4.65	0.030	IG_V_gene	ENSMUSG0000076545.2	NA
Ighv1-80	4.63	0.008	IG_V_gene	ENSMUSG0000094075.1	NA
Ighv2-3	4.57	0.003	IG_V_gene	ENSMUSG0000094164.2	NA
Ighv5-9-1	4.57	0.001	IG_V_gene	ENSMUSG0000095210.2	NA
Ighv1-64	4.56	0.008	IG_V_gene	ENSMUSG0000094088.2	NA
Igkv19-93	4.56	0.016	IG_V_gene	ENSMUSG0000098814.2	NA
Igkv17-127	4.54	0.030	IG_V_gene	ENSMUSG0000076508.3	NA
Ighv14-3	4.53	0.013	IG_V_gene	ENSMUSG0000095642.3	NA
Igkv4-50	4.51	0.007	IG_V_gene	ENSMUSG0000076562.1	NA
Igkc	4.50	0.001	IG_C_gene	ENSMUSG0000076609.2	NA
Ighv1-39	4.48	0.013	IG_V_gene	ENSMUSG0000095130.1	NA
Ighv1-66	4.46	0.014	IG_V_gene	ENSMUSG0000095519.2	NA
Igkv4-53	4.43	0.038	IG_V_gene	ENSMUSG0000095753.2	NA
Igkv10-96	4.39	0.001	IG_V_gene	ENSMUSG0000094420.2	NA
Ighv7-3	4.36	0.007	IG_V_gene	ENSMUSG0000076652.4	NA
Igkv1-135	4.36	0.017	IG_V_gene	ENSMUSG0000096336.2	NA
Igkv12-44	4.31	0.041	IG_V_gene	ENSMUSG0000096422.2	NA
Igkv14-111	4.28	0.020	IG_V_gene	ENSMUSG0000095771.2	NA
Igkv1-117	4.27	0.009	IG_V_gene	ENSMUSG0000094335.2	NA
Igkv12-98	4.26	0.008	IG_V_gene	ENSMUSG0000076526.6	NA
Igkv8-21	4.26	0.004	IG_V_gene	ENSMUSG0000076586.2	NA
Igkv10-94	4.24	0.043	IG_V_gene	ENSMUSG0000096490.1	NA
Ighv1-4	4.23	0.040	IG_V_gene	ENSMUSG0000095441.1	NA
Nuggc	4.23	0.041	protein_coding	ENSMUSG0000061356.13	100503545
Igkv3-10	4.17	0.011	IG_V_gene	ENSMUSG0000076596.3	NA
Igkv3-5	4.14	0.048	IG_V_gene	ENSMUSG0000095335.2	NA
Mzb1	4.13	0.003	protein_coding	ENSMUSG0000024353.4	69816
Ighv1-50	4.11	0.013	IG_V_gene	ENSMUSG0000094198.2	NA
Igkv5-39	4.07	0.012	IG_V_gene	ENSMUSG0000076569.3	NA
Igkv4-68	4.01	0.028	IG_V_gene	ENSMUSG0000076549.2	NA
Igkv8-24	3.99	0.031	IG_V_gene	ENSMUSG0000076583.1	NA
Ighv14-2	3.98	0.005	IG_V_gene	ENSMUSG0000095583.1	NA
Ighv1-53	3.88	0.012	IG_V_gene	ENSMUSG0000095384.1	NA
Igkv13-84	3.85	0.029	IG_V_gene	ENSMUSG0000076538.1	NA
Igkjb4	3.84	0.032	IG_J_gene	ENSMUSG0000076607.1	NA
Ighv6-3	3.83	0.046	IG_V_gene	ENSMUSG0000076677.1	NA
Igkv4-57	3.81	0.049	IG_V_gene	ENSMUSG0000076556.3	NA
Ighv2-2	3.81	0.002	IG_V_gene	ENSMUSG0000096464.2	NA
Igkv6-13	3.80	0.018	IG_V_gene	ENSMUSG0000076594.2	NA
Ighv3-8	3.79	0.026	IG_V_gene	ENSMUSG0000076674.2	NA
Ighv10-3	3.78	0.026	IG_V_gene	ENSMUSG0000095700.2	NA
Ighv10-1	3.70	0.040	IG_V_gene	ENSMUSG0000095981.1	NA
Ighv8-8	3.69	0.038	IG_V_gene	ENSMUSG00000104452.1	NA
Ighv1-72	3.68	0.020	IG_V_gene	ENSMUSG0000096074.2	NA
Gm21960	3.64	0.016	processed_pseudogene	ENSMUSG0000095836.3	NA
Ighv1-22	3.64	0.010	IG_V_gene	ENSMUSG0000094561.1	NA
Igha	3.63	0.029	IG_C_gene	ENSMUSG0000095079.6	NA
Igkv4-58	3.61	0.013	IG_V_gene	ENSMUSG0000096332.2	NA
Igkv1-110	3.55	0.035	IG_V_gene	ENSMUSG0000093861.2	NA
Igkv14-130	3.50	0.021	IG_V_gene	ENSMUSG0000096461.5	NA
AI847159	3.47	0.017	antisense	ENSMUSG0000084826.7	100048701
Xlr4e-ps	3.47	0.011	unprocessed_pseudogene	ENSMUSG0000081357.1	NA
Igcl2	3.44	0.031	IG_C_gene	ENSMUSG0000076937.3	NA
Mrgprb13	3.41	0.011	unprocessed_pseudogene	ENSMUSG0000099620.1	620137
Bhlha15	3.37	0.026	protein_coding	ENSMUSG0000052271.7	17341
Igkv4-74	3.36	0.049	IG_V_gene	ENSMUSG0000076543.2	NA
Igkv4-90	3.33	0.013	IG_V_gene	ENSMUSG0000076533.3	NA
Igkv4-57-1	3.31	0.025	IG_V_gene	ENSMUSG0000076555.3	NA
Igkv4-70	3.26	0.026	IG_V_gene	ENSMUSG0000076547.2	NA
Ighv1-36	3.13	0.020	IG_V_gene	ENSMUSG0000094051.6	NA
Gesam	3.09	0.028	protein_coding	ENSMUSG0000022659.13	14525
Ighv1-63	3.08	0.031	IG_V_gene	ENSMUSG0000096672.1	NA
5830418P13Rik	3.07	0.023	processed_transcript	ENSMUSG0000086236.7	100529079
Dert3	3.06	0.030	protein_coding	ENSMUSG0000090992.4	NA
Ighv2-4	2.98	0.043	IG_V_gene	ENSMUSG0000095866.1	NA
Gm17571	2.75	0.043	protein_coding	ENSMUSG0000090592.2	NA
Eaf2	2.66	0.049	protein_coding	ENSMUSG0000022838.13	106389
Cxcl13	2.60	0.042	protein_coding	ENSMUSG0000023078.6	55985
Iglj1	2.60	0.026	IG_J_gene	ENSMUSG00000106668.1	NA
Actn2	2.58	0.023	protein_coding	ENSMUSG0000052374.14	11472
Snora62	2.56	0.042	snoRNA	ENSMUSG0000064925.1	NA
Trp53tg5	2.44	0.022	protein_coding	ENSMUSG0000017720.2	73603
Fpr2	2.41	0.038	protein_coding	ENSMUSG0000052270.7	14289

IWAT down-regulated DEGs

Gene Symbol	Log2(FC)	Adj.p-Value	Gene Type	GeneID	EntrezID
Cck	-3.49	0.004	protein_coding	ENSMUSG00000032532.6	12424
Tph2	-2.98	0.026	protein_coding	ENSMUSG0000006764.8	216343
RP23-389N20.2	-2.59	0.013	processed_transcript	ENSMUSG00000109783.1	NA
Gm37784	-2.51	0.042	processed_pseudogene	ENSMUSG00000102525.1	NA
Abcc2	-2.37	0.019	protein_coding	ENSMUSG00000025194.5	12780
Gm6054	-2.23	0.043	processed_pseudogene	ENSMUSG00000057157.3	NA
RP23-453P1.1	-2.19	0.041	TEC	ENSMUSG00000109909.1	NA
201010301Rik	-2.18	0.026	antisense	ENSMUSG00000104368.1	69889
Gm42778	-2.15	0.026	TEC	ENSMUSG00000105112.1	NA
Cdk14	-1.97	0.006	protein_coding	ENSMUSG00000033966.7	381113
DS30033B14Rik	-1.97	0.043	antisense	ENSMUSG00000108332.1	NA
Fam84a	-1.80	0.047	protein_coding	ENSMUSG00000020607.6	NA
Gm28644	-1.78	0.046	lincRNA	ENSMUSG00000100237.1	NA
Diras2	-1.76	0.008	protein_coding	ENSMUSG00000047842.6	68203
Wat8b	-1.71	0.042	protein_coding	ENSMUSG00000033966.7	22423
Scd3	-1.58	0.040	protein_coding	ENSMUSG00000025202.7	30049
Fgf9	-1.58	0.017	protein_coding	ENSMUSG00000021974.14	14180
Gm11766	-1.56	0.020	lincRNA	ENSMUSG00000086924.1	NA
Gm18190	-1.50	0.035	transcribed_unprocessed_pseudogene	ENSMUSG00000098900.2	NA
Trab2b	-1.38	0.026	protein_coding	ENSMUSG00000070867.4	666048
Ret	-1.37	0.034	protein_coding	ENSMUSG00000030110.13	NA
Slec8a1	-1.37	0.013	protein_coding	ENSMUSG00000054640.14	20541
Hspa1b	-1.35	0.041	protein_coding	ENSMUSG00000090877.3	15511
Slec13a4	-1.35	0.049	protein_coding	ENSMUSG00000029843.4	243755
Shisa6	-1.31	0.028	protein_coding	ENSMUSG00000053930.13	380702
Pm20d1	-1.31	0.021	protein_coding	ENSMUSG00000042251.12	212933
Casq1	-1.24	0.026	protein_coding	ENSMUSG00000007122.11	12372
Matn2	-1.23	0.017	protein_coding	ENSMUSG00000002234.14	17181
Ptpfr	-1.17	0.002	protein_coding	ENSMUSG00000033295.13	19268
Lpgat1	-1.16	0.035	protein_coding	ENSMUSG00000026623.16	226856
Gja1	-1.13	0.043	protein_coding	ENSMUSG00000050953.9	14609
Copg2	-1.12	0.043	protein_coding	ENSMUSG00000025607.15	54160
A430105119Rik	-1.10	0.048	protein_coding	ENSMUSG00000045838.8	214239
Serpina3c	-1.10	0.049	protein_coding	ENSMUSG00000066361.3	16625
Plekhh2	-1.09	0.019	protein_coding	ENSMUSG00000040852.5	213556
Nnmat2	-1.07	0.024	protein_coding	ENSMUSG00000042751.14	226518
Gm9951	-1.07	0.021	lincRNA	ENSMUSG00000054618.8	NA
Fmr1	-1.06	0.041	protein_coding	ENSMUSG00000000838.17	14265
Lrp11	-1.05	0.026	protein_coding	ENSMUSG00000019796.12	237253
Dst	-1.03	0.040	protein_coding	ENSMUSG00000026131.18	13518
Lpin3	-1.01	0.029	protein_coding	ENSMUSG00000027412.12	64899
Tic28	-1.01	0.035	protein_coding	ENSMUSG00000033209.17	209683
Kirrel	-1.00	0.028	protein_coding	ENSMUSG000000041734.15	170643
Ednrb	-0.99	0.017	protein_coding	ENSMUSG0000002122.14	13618
Fhd3	-0.97	0.041	protein_coding	ENSMUSG00000034295.9	225288
Cep85l	-0.96	0.038	protein_coding	ENSMUSG00000038594.8	10038725
Tlr5	-0.96	0.027	protein_coding	ENSMUSG000000079164.8	53791
Wnt5a	-0.95	0.044	protein_coding	ENSMUSG00000021994.14	22418
Arhgap29	-0.95	0.036	protein_coding	ENSMUSG00000039831.16	214137
Sik2	-0.95	0.044	protein_coding	ENSMUSG00000037112.16	235344
Hipk2	-0.95	0.032	protein_coding	ENSMUSG00000061436.15	15258
Tanc1	-0.95	0.033	protein_coding	ENSMUSG00000035168.16	66860
Sax1	-0.94	0.041	protein_coding	ENSMUSG00000028007.13	76561
Lrg1	-0.94	0.023	protein_coding	ENSMUSG00000037095.7	76905
Limch1	-0.93	0.023	protein_coding	ENSMUSG00000037736.18	77569
Rnf125	-0.93	0.033	protein_coding	ENSMUSG00000033107.5	67664
Fat4	-0.93	0.045	protein_coding	ENSMUSG00000046743.6	329628
4931406P16Rik	-0.92	0.024	protein_coding	ENSMUSG00000066571.13	233103
Mxra8	-0.92	0.032	protein_coding	ENSMUSG00000029070.9	74761
Arid5b	-0.91	0.038	protein_coding	ENSMUSG00000019947.9	71371
Klhl29	-0.90	0.020	protein_coding	ENSMUSG00000020627.9	208439
Prr16	-0.87	0.040	protein_coding	ENSMUSG00000073565.4	71373
Prps1	-0.86	0.032	protein_coding	ENSMUSG00000031432.3	19139
Kif13b	-0.86	0.021	protein_coding	ENSMUSG00000060012.7	16554
Lamc1	-0.84	0.048	protein_coding	ENSMUSG00000026478.14	226519
Cela1	-0.84	0.047	protein_coding	ENSMUSG00000023031.7	109901
Gpm	-0.84	0.043	protein_coding	ENSMUSG00000024978.10	14732
Gm14399	-0.84	0.048	protein_coding	ENSMUSG00000090093.8	100043761
Atp8b1	-0.83	0.019	protein_coding	ENSMUSG00000035929.8	54670

Dnph1	2.37	0.011	protein_coding	ENSMUSG0000040658.6	381101	Gm14410	-0.64	0.041	protein_coding	ENSMUSG00000078870.9	100043403
Gm22083	2.33	0.037	snRNA	ENSMUSG00000088211.1	NA	Ttc7b	-0.63	0.045	protein_coding	ENSMUSG00000033530.7	104718
Scimp	2.32	0.026	protein_coding	ENSMUSG00000057135.12	327957	Klhd10	-0.63	0.022	protein_coding	ENSMUSG00000029775.14	76788
Gm22716	2.27	0.040	snRNA	ENSMUSG00000095178.1	NA	Piezo1	-0.62	0.040	protein_coding	ENSMUSG00000014444.17	234839
Fut7	2.24	0.048	protein_coding	ENSMUSG00000036587.13	14347	Pgd	-0.61	0.042	protein_coding	ENSMUSG00000028961.15	110208
Gm37009	2.24	0.022	processed_pseudogene	ENSMUSG00000103880.1	NA	Notch1	-0.60	0.048	protein_coding	ENSMUSG00000026923.15	18128
Gm12407	2.23	0.048	unprocessed_pseudogene	ENSMUSG00000095298.2	NA	Alg10b	-0.60	0.014	protein_coding	ENSMUSG00000075470.1	380959
Bcl2a1b	2.23	0.038	protein_coding	ENSMUSG00000089929.1	12045	Rbms3	-0.59	0.025	protein_coding	ENSMUSG00000039607.15	207181
Xlr4c	2.21	0.023	protein_coding	ENSMUSG00000031362.17	72891	Arhgef12	-0.59	0.026	protein_coding	ENSMUSG00000059495.13	69632
Rassf6	2.18	0.048	protein_coding	ENSMUSG00000029370.10	73246	Gm14326	-0.59	0.016	protein_coding	ENSMUSG00000035372.1	NA
Trav4-4-dv10	2.07	0.047	TR_V_gene	ENSMUSG00000096096.3	NA	Gm14326	-0.59	0.028	protein_coding	ENSMUSG00000028923.15	665211
Gm23543	2.01	0.041	snRNA	ENSMUSG00000088832.1	NA	Bmp2	-0.58	0.041	protein_coding	ENSMUSG00000067336.6	12168
4930589L23Rik	2.00	0.031	lincRNA	ENSMUSG00000068957.1	75879	Gclm	-0.58	0.014	protein_coding	ENSMUSG00000028124.15	14630
Hc	1.98	0.005	protein_coding	ENSMUSG00000026874.10	15139	Ptp4a1	-0.58	0.021	protein_coding	ENSMUSG00000046044.15	19243
Clec4e	1.93	0.028	protein_coding	ENSMUSG00000030142.10	56619	Xrcc2	-0.57	0.045	protein_coding	ENSMUSG00000028933.11	57434
Cd24a	1.92	0.018	protein_coding	ENSMUSG00000047139.8	12484	Elmod2	-0.57	0.044	protein_coding	ENSMUSG00000035151.12	244548
Mir703	1.89	0.018	miRNA	ENSMUSG00000105814.1	735265	Sipal11	-0.57	0.007	protein_coding	ENSMUSG00000042700.15	217692
Ifitm1	1.87	0.022	protein_coding	ENSMUSG00000025491.14	68713	Ttc30b	-0.57	0.050	protein_coding	ENSMUSG00000075273.4	72421
Plac8	1.86	0.004	protein_coding	ENSMUSG00000029322.12	231507	Ccser2	-0.56	0.041	protein_coding	ENSMUSG00000050890.14	72972
Clec2g	1.80	0.044	protein_coding	ENSMUSG00000000248.16	70809	Vkorc111	-0.56	0.038	protein_coding	ENSMUSG00000066735.8	69568
Gm9025	1.80	0.041	processed_pseudogene	ENSMUSG00000082433.2	NA	Nek6	-0.56	0.019	protein_coding	ENSMUSG00000026749.11	59126
I830077J02Rik	1.74	0.005	protein_coding	ENSMUSG00000074342.3	433638	Dram1	-0.56	0.039	protein_coding	ENSMUSG00000020057.2	71712
A530040E14Rik	1.74	0.034	antisense	ENSMUSG00000072109.11	621875	Usp46	-0.55	0.029	protein_coding	ENSMUSG00000054814.14	69727
Lst1	1.74	0.048	protein_coding	ENSMUSG000000078412.6	16988	Pvr	-0.55	0.047	protein_coding	ENSMUSG00000040511.14	52118
Ly6c2	1.72	0.012	protein_coding	ENSMUSG00000022584.14	100041546	Stambp11	-0.55	0.020	protein_coding	ENSMUSG00000024776.17	76630
Stab2	1.72	0.024	protein_coding	ENSMUSG00000035459.15	192188	Atl3	-0.54	0.029	protein_coding	ENSMUSG00000024759.10	109168
5430427019Rik	1.66	0.007	protein_coding	ENSMUSG00000025058.4	71398	Nrip1	-0.54	0.048	protein_coding	ENSMUSG00000048490.13	268903
Rshp1	1.66	0.033	protein_coding	ENSMUSG00000024033.9	22092	Atg9a	-0.54	0.020	protein_coding	ENSMUSG00000033124.15	245860
Hba-a2	1.65	0.020	protein_coding	ENSMUSG00000069917.7	110257	Mical3	-0.53	0.050	protein_coding	ENSMUSG00000051586.16	194401
AU021092	1.63	0.005	protein_coding	ENSMUSG000000051669.5	239691	Ssx2zip	-0.53	0.041	protein_coding	ENSMUSG00000036825.12	99167
Asb2	1.63	0.026	protein_coding	ENSMUSG00000021200.14	65256	Irgg	-0.53	0.006	protein_coding	ENSMUSG00000041037.8	210146
Tagap	1.63	0.038	protein_coding	ENSMUSG00000033450.7	72536	Ikbip	-0.53	0.026	protein_coding	ENSMUSG00000019975.12	67454
Ankrd55	1.60	0.044	protein_coding	ENSMUSG00000049985.14	77318	Arhgef11	-0.53	0.018	protein_coding	ENSMUSG00000041977.18	213498
Art4	1.59	0.022	protein_coding	ENSMUSG00000030217.2	109978	Zfp609	-0.53	0.012	protein_coding	ENSMUSG00000054829.9	214812
Soat2	1.56	0.028	protein_coding	ENSMUSG00000023045.12	223920	Bace1	-0.52	0.048	protein_coding	ENSMUSG00000032086.12	23821
Chaf1b	1.51	0.005	protein_coding	ENSMUSG00000022945.11	110749	Atrn	-0.52	0.013	protein_coding	ENSMUSG00000027312.14	11990
E430024P14Rik	1.48	0.031	antisense	ENSMUSG00000090069.2	100040822	Sec23a	-0.52	0.030	protein_coding	ENSMUSG00000020986.13	20334
Tox2	1.48	0.041	protein_coding	ENSMUSG00000074607.11	269389	Tmtc3	-0.52	0.032	protein_coding	ENSMUSG00000036676.14	237500
Pilra	1.48	0.037	protein_coding	ENSMUSG00000046245.13	231805	Pdlim7	-0.52	0.024	protein_coding	ENSMUSG00000021493.15	67399
Klh16	1.47	0.050	protein_coding	ENSMUSG00000043008.8	239743	Mtmr9	-0.51	0.044	protein_coding	ENSMUSG00000035078.5	210376
Serp1b1a	1.46	0.015	protein_coding	ENSMUSG00000044734.15	66222	Pomt2	-0.51	0.020	protein_coding	ENSMUSG00000034126.4	217734
Dynl1a	1.46	0.039	protein_coding	ENSMUSG00000092074.1	100310872	Focad	-0.51	0.020	protein_coding	ENSMUSG00000038368.16	230393
Stac2	1.45	0.020	protein_coding	ENSMUSG00000017400.10	217154						
Blnk	1.41	0.048	protein_coding	ENSMUSG000000061132.13	NA						
Irf4	1.41	0.007	protein_coding	ENSMUSG000000021356.9	16364						
Pleg2	1.41	0.040	protein_coding	ENSMUSG00000034330.10	234779						
Gpr183	1.40	0.026	protein_coding	ENSMUSG000000051212.7	321019						
Milr1	1.40	0.038	protein_coding	ENSMUSG00000040528.15	380732						
Al1662270	1.39	0.006	lincRNA	ENSMUSG000000087107.7	100043636						
Pafah1b3	1.39	0.032	protein_coding	ENSMUSG00000005447.12	18476						
Ydjc	1.38	0.049	protein_coding	ENSMUSG000000041774.14	69101						
Cd200r3	1.37	0.026	protein_coding	ENSMUSG00000036172.17	74603						
Kenk5	1.37	0.014	protein_coding	ENSMUSG00000023243.8	16529						
Gm11427	1.36	0.017	unprocessed_pseudogene	ENSMUSG000000083161.1	NA						
H2-Ab1	1.35	0.016	protein_coding	ENSMUSG00000073421.5	14961						
Rpsa-ps2	1.34	0.034	processed_pseudogene	ENSMUSG00000045055.4	NA						
Cd74	1.34	0.030	protein_coding	ENSMUSG00000024610.14	16149						
Mmrn1	1.30	0.025	protein_coding	ENSMUSG00000054641.10	70945						
H2-Eb1	1.30	0.021	protein_coding	ENSMUSG00000060586.10	14969						
Batf	1.29	0.014	protein_coding	ENSMUSG00000034266.5	53314						
Dynl1b	1.29	0.017	protein_coding	ENSMUSG00000096255.1	21648						
Ncf4	1.28	0.046	protein_coding	ENSMUSG00000071715.11	17972						
Lpxn	1.28	0.013	protein_coding	ENSMUSG00000024696.8	107321						
H2-Aa	1.28	0.041	protein_coding	ENSMUSG00000036594.14	14960						
Cxcr3	1.25	0.049	protein_coding	ENSMUSG00000050232.6	12766						
Stard10	1.25	0.022	protein_coding	ENSMUSG00000030688.15	56018						
Ezr	1.25	0.038	protein_coding	ENSMUSG00000052397.8	22350						
Pycard	1.23	0.037	protein_coding	ENSMUSG00000030793.4	66824						
Bst1	1.23	0.012	protein_coding	ENSMUSG00000029082.17	12182						
Laptm5	1.23	0.034	protein_coding	ENSMUSG00000028581.17	NA						
Rragd	1.23	0.043	protein_coding	ENSMUSG00000028278.14	52187						
Itgb7	1.22	0.045	protein_coding	ENSMUSG00000001281.9	16421						
H2-T-ps	1.22	0.033	unprocessed_pseudogene	ENSMUSG00000073405.6	667803						
Cd48	1.20	0.034	protein_coding	ENSMUSG00000015355.13	12506						
H2-K2	1.19	0.007	unprocessed_pseudogene	ENSMUSG00000067203.7	NA						
Fermt3	1.19	0.045	protein_coding	ENSMUSG00000024965.8	108110						
Gmfg	1.19	0.020	protein_coding	ENSMUSG00000060791.15	63986						
Slc2a3	1.18	0.030	protein_coding	ENSMUSG00000003153.10	20527						
Enpp1	1.17	0.020	protein_coding	ENSMUSG00000037370.13	18605						
Qprt	1.16	0.049	protein_coding	ENSMUSG000000030674.5	67375						
Nrg2	1.16	0.044	protein_coding	ENSMUSG00000060275.11	100042150						
Ptpn18	1.16	0.040	protein_coding	ENSMUSG00000026126.15	19253						
Itga2b	1.15	0.028	protein_coding	ENSMUSG00000034664.13	16399						
Slc16a3	1.15	0.026	protein_coding	ENSMUSG00000025161.16	80879						
Cbr3	1.13	0.028	protein_coding	ENSMUSG00000022947.7	109857						
Gm9843	1.13	0.011	protein_coding	ENSMUSG00000050299.7	NA						
Pstpip1	1.11	0.045	protein_coding	ENSMUSG00000032322.14	19200						
Gm14586	1.11	0.022	processed_pseudogene	ENSMUSG00000083621.1	NA						
H2-DMa	1.11	0.049	protein_coding	ENSMUSG00000037649.9	14998						
Ifi30	1.10	0.043	protein_coding	ENSMUSG000000031838.7	65972						
Kif19a	1.10	0.038	protein_coding	ENSMUSG00000010021.13	NA						
Syk	1.09	0.041	protein_coding	ENSMUSG00000021457.14	20963						
Prkcz	1.09	0.041	protein_coding	ENSMUSG00000029053.16	18762						
B3gnt8	1.09	0.036	protein_coding	ENSMUSG00000059479.7	232984						
Donson	1.08	0.003	protein_coding	ENSMUSG00000022960.12	60364						
Arhgd1b	1.07	0.041	protein_coding	ENSMUSG00000030220.13	11857						
Aprt	1.07	0.017	protein_coding	ENSMUSG00000006589.8	11821						
Rps3a1	1.06	0.044	protein_coding	ENSMUSG00000028081.6	20091						
Syt13	1.04	0.031	protein_coding	ENSMUSG000000041831.15	83672						
Tmem154	1.04	0.039	protein_coding	ENSMUSG00000056498.13	320782						
AU020206	1.04	0.034	lincRNA	ENSMUSG00000097415.2	NA						
Sp3os	1.04	0.015	antisense	ENSMUSG00000063714.15	NA						
Sdf211	1.03	0.022	protein_coding	ENSMUSG00000022769.7	64136						
Ncf1	1.03	0.042	protein_coding	ENSMUSG00000015950.13	17969						

Frat1	1.02	0.011	protein_coding	ENSMUSG00000067199.4	14296
Rnaset2a	1.02	0.005	protein_coding	ENSMUSG00000095687.1	100037283
Tiam2	1.01	0.043	protein_coding	ENSMUSG00000023800.14	24001
Rps27	1.01	0.008	protein_coding	ENSMUSG00000090733.6	57294
4930404105Rik	1.01	0.049	processed_transcript	ENSMUSG00000087354.1	67394
Cenph	1.01	0.047	protein_coding	ENSMUSG00000045273.8	26886
Rps10-ps1	0.99	0.006	processed_pseudogene	ENSMUSG00000060438.5	NA
Zfas1	0.99	0.007	processed_transcript	ENSMUSG00000074578.13	68949
Dynl1c	0.99	0.006	protein_coding	ENSMUSG0000000579.14	100040563
Cnp	0.97	0.005	protein_coding	ENSMUSG0000006782.16	12799
Mcoln2	0.97	0.044	protein_coding	ENSMUSG00000011008.13	68279
Tmem181b-ps	0.97	0.046	transcribed_unprocessed_pseudogene	ENSMUSG00000096780.7	NA
Usp11	0.96	0.038	protein_coding	ENSMUSG00000031066.10	236733
Rpl28-ps1	0.96	0.001	processed_pseudogene	ENSMUSG00000058603.10	NA
Trpv2	0.95	0.007	protein_coding	ENSMUSG00000018507.16	22368
Arid3a	0.93	0.045	protein_coding	ENSMUSG00000019564.12	13496
Hcls1	0.93	0.022	protein_coding	ENSMUSG00000022831.14	15163
Shmt1	0.93	0.048	protein_coding	ENSMUSG00000020534.14	20425
Sh3bgrl3	0.93	0.050	protein_coding	ENSMUSG00000028843.8	73723
Cfp	0.92	0.016	protein_coding	ENSMUSG00000001128.7	18636
Socs3	0.92	0.028	protein_coding	ENSMUSG00000053113.3	12702
Rpl31-ps8	0.91	0.007	processed_pseudogene	ENSMUSG00000067870.5	NA
Dynl1f	0.90	0.043	protein_coding	ENSMUSG00000095677.1	100040531
Pim1	0.90	0.026	protein_coding	ENSMUSG00000024014.7	18712
Rnaset2b	0.90	0.008	protein_coding	ENSMUSG00000094724.7	68195
Unc93b1	0.89	0.048	protein_coding	ENSMUSG00000036908.16	54445
Accs1	0.88	0.032	protein_coding	ENSMUSG00000027452.11	68738
Rps29	0.88	0.011	protein_coding	ENSMUSG00000034892.8	20090
2410006H16Rik	0.88	0.022	processed_transcript	ENSMUSG00000086841.1	69221
Gm10275	0.88	0.005	transcribed_processed_pseudogene	ENSMUSG00000069682.5	NA
Rps28	0.87	0.016	protein_coding	ENSMUSG00000067288.12	54127
Rps6ka1	0.87	0.005	protein_coding	ENSMUSG00000003644.17	20111
Ii10rb	0.86	0.008	protein_coding	ENSMUSG00000022969.13	16155
Cd82	0.85	0.034	protein_coding	ENSMUSG00000027215.13	NA
Stfgalnac3	0.85	0.040	protein_coding	ENSMUSG00000052544.9	20447
Comtd1	0.85	0.043	protein_coding	ENSMUSG00000021773.10	69156
Rps26	0.85	0.032	protein_coding	ENSMUSG00000025362.5	27370
Fbxo5	0.84	0.038	protein_coding	ENSMUSG00000019773.7	67141
Bmyc	0.84	0.019	protein_coding	ENSMUSG00000049086.8	107771
Mis18a	0.84	0.005	protein_coding	ENSMUSG00000022978.11	66578
Cryz11	0.84	0.008	protein_coding	ENSMUSG00000058240.13	66609
Smim11	0.83	0.008	protein_coding	ENSMUSG00000051989.11	68936
Hpse	0.83	0.044	protein_coding	ENSMUSG00000035273.14	15442
Rpl37a	0.82	0.013	protein_coding	ENSMUSG00000046330.10	19981
Sft2d1	0.82	0.001	protein_coding	ENSMUSG00000073468.11	106489
Gm2000	0.82	0.008	protein_coding	ENSMUSG00000078193.2	NA
Psbm8	0.81	0.017	protein_coding	ENSMUSG00000024338.14	16913
Kcnab2	0.81	0.036	protein_coding	ENSMUSG00000028931.11	16498
Cdt1	0.81	0.040	protein_coding	ENSMUSG00000006585.3	67177
Stxbp2	0.81	0.010	protein_coding	ENSMUSG00000004626.14	20911
Fxyd5	0.81	0.049	protein_coding	ENSMUSG00000009687.14	18301
Sp140	0.81	0.041	protein_coding	ENSMUSG00000070031.11	434484
Sms	0.80	0.044	protein_coding	ENSMUSG00000071708.11	20603
Bace2	0.80	0.026	protein_coding	ENSMUSG00000040605.6	56175
Brwd1	0.79	0.016	protein_coding	ENSMUSG00000022914.15	93871
Tagap1	0.79	0.026	protein_coding	ENSMUSG00000052031.7	380608
Mettl18	0.79	0.038	protein_coding	ENSMUSG00000041396.13	NA
Gm9794	0.78	0.002	processed_pseudogene	ENSMUSG00000107176.1	NA
Clec5a	0.78	0.021	protein_coding	ENSMUSG00000029915.14	23845
Zdhhc14	0.78	0.024	protein_coding	ENSMUSG00000034265.7	224454
Rps15a	0.77	0.011	protein_coding	ENSMUSG00000008683.16	267019
Gm5805	0.77	0.034	processed_pseudogene	ENSMUSG00000061848.5	NA
Bid	0.77	0.043	protein_coding	ENSMUSG00000004446.12	12122
Coa4	0.77	0.021	protein_coding	ENSMUSG00000044881.7	68185
Rpl34-ps1	0.77	0.031	processed_pseudogene	ENSMUSG00000068396.9	619547
Rps24	0.76	0.006	protein_coding	ENSMUSG00000025290.16	20088
Ccdc163	0.76	0.010	protein_coding	ENSMUSG00000028689.14	68394
Rplp1	0.76	0.003	protein_coding	ENSMUSG00000007892.7	NA
Slc9a3r1	0.76	0.049	protein_coding	ENSMUSG00000020733.3	26941
Rpsa-ps10	0.76	0.020	processed_pseudogene	ENSMUSG00000047676.6	NA
Bri3bp	0.76	0.015	protein_coding	ENSMUSG00000037905.13	76809
Hmgn1	0.76	0.002	protein_coding	ENSMUSG00000040681.14	15312
Rpl38	0.75	0.031	protein_coding	ENSMUSG00000057322.12	67671
Rpl23a-ps3	0.75	0.034	protein_coding	ENSMUSG00000078126.3	NA
Sod1	0.75	0.028	protein_coding	ENSMUSG00000022982.9	20655
Rps20	0.75	0.006	protein_coding	ENSMUSG00000028234.6	67427
Gm15682	0.75	0.041	processed_pseudogene	ENSMUSG00000095524.1	108169053
Rpl23	0.75	0.003	protein_coding	ENSMUSG00000071415.6	65019
Rps19-ps6	0.74	0.025	processed_pseudogene	ENSMUSG00000096942.1	NA
Rps21	0.74	0.025	protein_coding	ENSMUSG00000039001.12	NA
Mif	0.74	0.044	protein_coding	ENSMUSG00000033307.6	17319
Xrcc5	0.73	0.038	protein_coding	ENSMUSG00000026187.8	22596
Gngt2	0.73	0.040	protein_coding	ENSMUSG00000038811.13	14710
Dqx1	0.73	0.038	protein_coding	ENSMUSG00000009145.6	93838
H2-M3	0.72	0.048	protein_coding	ENSMUSG00000016206.6	14991
Rpl12	0.72	0.025	protein_coding	ENSMUSG00000038900.17	269261
Gm15427	0.72	0.026	processed_pseudogene	ENSMUSG00000008105.4	NA
Fgfr1op	0.72	0.013	protein_coding	ENSMUSG00000069135.11	75296
Tfb1m	0.71	0.016	protein_coding	ENSMUSG00000036983.6	224481
Themis2	0.71	0.044	protein_coding	ENSMUSG00000037731.5	230787
Gm14303	0.71	0.026	processed_pseudogene	ENSMUSG000000081344.5	NA
Rpl18a	0.70	0.012	protein_coding	ENSMUSG000000045128.9	76808
Dscr3	0.70	0.007	protein_coding	ENSMUSG00000022898.12	13185
Rpl31	0.70	0.008	protein_coding	ENSMUSG00000073702.11	114641
Rpl37	0.70	0.005	protein_coding	ENSMUSG000000041841.7	67281
Rpl21	0.70	0.048	protein_coding	ENSMUSG00000041453.12	19933
Rpl35a	0.69	0.003	protein_coding	ENSMUSG00000060636.13	57808
Ifngr2	0.69	0.015	protein_coding	ENSMUSG00000022965.7	15980
Rps15	0.69	0.003	protein_coding	ENSMUSG00000063457.14	20054
Rps16	0.69	0.005	protein_coding	ENSMUSG00000037563.15	20055
Son	0.69	0.007	protein_coding	ENSMUSG00000022961.17	20658
Rpl36	0.69	0.012	protein_coding	ENSMUSG00000057863.5	54217
Tor4a	0.69	0.042	protein_coding	ENSMUSG00000059555.6	227612
Rpl37rt	0.68	0.019	transcribed_processed_pseudogene	ENSMUSG00000072692.7	100502825

Rpl39	0.68	0.032	protein_coding	ENSMUSG00000079641.3	NA
Rpl13	0.68	0.004	protein_coding	ENSMUSG00000000740.12	270106
Icam1	0.68	0.009	protein_coding	ENSMUSG00000037405.7	15894
Rpl13a	0.67	0.032	protein_coding	ENSMUSG00000074129.13	22121
Gm7536	0.67	0.013	processed_pseudogene	ENSMUSG00000057036.7	NA
Rps10	0.67	0.004	protein_coding	ENSMUSG00000052146.15	67097
Gm10132	0.67	0.013	processed_pseudogene	ENSMUSG00000063556.5	NA
Gsdmd	0.66	0.040	protein_coding	ENSMUSG00000022575.4	69146
Rps23	0.66	0.002	protein_coding	ENSMUSG00000049517.7	66475
Rps17	0.66	0.008	protein_coding	ENSMUSG00000061787.15	20068
Snx5	0.66	0.043	protein_coding	ENSMUSG00000027423.15	69178
Rps5	0.66	0.013	protein_coding	ENSMUSG00000012848.15	20103
Rpl32	0.66	0.011	protein_coding	ENSMUSG00000057841.5	19951
Got2	0.66	0.035	protein_coding	ENSMUSG00000031672.8	14719
Rpl36a	0.66	0.007	protein_coding	ENSMUSG00000079435.9	19982
Casp4	0.65	0.012	protein_coding	ENSMUSG00000033538.13	12363
Rpl28	0.65	0.013	protein_coding	ENSMUSG00000030432.12	19943
Pold4	0.65	0.011	protein_coding	ENSMUSG00000024854.3	NA
Tmem242	0.65	0.022	protein_coding	ENSMUSG0000004945.15	70544
Rpl17	0.65	0.014	protein_coding	ENSMUSG00000062328.7	319195
Rfc2	0.65	0.041	protein_coding	ENSMUSG00000023104.9	19718
Rps3	0.65	0.008	protein_coding	ENSMUSG00000030744.13	27050
Nudt8	0.65	0.038	protein_coding	ENSMUSG00000024869.9	NA
Snhg8	0.65	0.032	processed_transcript	ENSMUSG00000104960.1	69895
Rps13	0.64	0.004	protein_coding	ENSMUSG00000090862.3	68052
Tha1	0.64	0.019	protein_coding	ENSMUSG00000017713.9	71776
Mrpl39	0.64	0.008	protein_coding	ENSMUSG00000022889.7	27393
1110038B12Rik	0.64	0.043	processed_transcript	ENSMUSG00000092203.7	68763
Clic1	0.64	0.036	protein_coding	ENSMUSG00000007041.9	114584
Gm9800	0.64	0.008	pseudogene	ENSMUSG00000045799.5	NA
Cct8	0.64	0.007	protein_coding	ENSMUSG00000025613.13	12469
Arrb2	0.64	0.050	protein_coding	ENSMUSG00000060216.15	216869
Plcl2	0.63	0.014	protein_coding	ENSMUSG00000038910.6	224860
Snrpg	0.63	0.031	protein_coding	ENSMUSG00000057278.8	68011
Ptma	0.63	0.048	protein_coding	ENSMUSG00000026238.14	NA
Atp5j	0.63	0.015	protein_coding	ENSMUSG00000022890.13	11957
Paxbp1	0.63	0.010	protein_coding	ENSMUSG00000022974.12	67367
Gm15500	0.63	0.022	transcribed_processed_pseudogene	ENSMUSG00000086583.3	NA
Rpl27a	0.63	0.008	protein_coding	ENSMUSG00000046364.14	26451
Morc3	0.62	0.040	protein_coding	ENSMUSG00000039456.9	338467
4933439C10Rik	0.62	0.038	processed_transcript	ENSMUSG00000072893.12	NA
Hn1	0.62	0.025	protein_coding	ENSMUSG00000020737.12	NA
Fau	0.62	0.017	protein_coding	ENSMUSG00000038274.11	14109
Zfp513	0.62	0.021	protein_coding	ENSMUSG00000043059.16	101023
Rpl10a	0.62	0.013	protein_coding	ENSMUSG00000037805.14	19896
Atg16l2	0.62	0.038	protein_coding	ENSMUSG00000047767.17	73683
Bach1	0.62	0.029	protein_coding	ENSMUSG00000025612.5	12013
Rpl2211	0.62	0.013	protein_coding	ENSMUSG00000039221.10	68028
Rpl36a-ps2	0.62	0.041	processed_pseudogene	ENSMUSG00000105388.1	NA
Rpl30	0.62	0.008	protein_coding	ENSMUSG00000058600.13	19946
Ifnar2	0.61	0.005	protein_coding	ENSMUSG00000022971.18	15976
Rpl35	0.61	0.021	protein_coding	ENSMUSG00000062997.6	66489
Abrac1	0.61	0.039	protein_coding	ENSMUSG00000078453.2	73112
Rps9	0.61	0.005	protein_coding	ENSMUSG0000006333.14	76846
Tmem258	0.61	0.021	protein_coding	ENSMUSG00000036372.14	69038
Rps7	0.60	0.022	protein_coding	ENSMUSG00000061477.3	20115
H3f3b	0.60	0.012	protein_coding	ENSMUSG00000016559.14	15081
Rps8	0.60	0.017	protein_coding	ENSMUSG00000047675.15	20116
Rps14	0.60	0.028	protein_coding	ENSMUSG00000024608.10	20044
Rps6	0.60	0.008	protein_coding	ENSMUSG00000028495.14	20104
Samhd1	0.60	0.028	protein_coding	ENSMUSG00000027639.16	56045
RP23-98C9.8	0.60	0.034	processed_pseudogene	ENSMUSG00000110679.1	NA
Fbl	0.60	0.017	protein_coding	ENSMUSG00000046865.7	14113
Rps4x	0.60	0.021	protein_coding	ENSMUSG00000031320.9	20102
Fam117a	0.60	0.048	protein_coding	ENSMUSG00000038893.12	215512
Hlcs	0.59	0.005	protein_coding	ENSMUSG00000040820.15	110948
Rplp2	0.59	0.015	protein_coding	ENSMUSG00000025508.13	67186
Slc15a4	0.59	0.020	protein_coding	ENSMUSG00000029416.17	100561
Tmsb4x	0.59	0.047	protein_coding	ENSMUSG00000049775.16	19241
Rps12	0.58	0.025	protein_coding	ENSMUSG00000061983.6	20042
Smap2	0.58	0.039	protein_coding	ENSMUSG00000032870.8	69780
Rack1	0.58	0.022	protein_coding	ENSMUSG00000020372.15	14694
Rps25	0.58	0.026	protein_coding	ENSMUSG00000009927.8	75617
Urb1	0.58	0.021	protein_coding	ENSMUSG00000039929.14	207932
BC037034	0.58	0.049	protein_coding	ENSMUSG00000036948.17	231807
Cdkn2d	0.58	0.018	protein_coding	ENSMUSG00000096472.1	12581
Rpsa	0.58	0.033	protein_coding	ENSMUSG00000032518.5	16785
Gm15501	0.57	0.020	transcribed_processed_pseudogene	ENSMUSG00000087412.4	100040298
Rps11	0.57	0.013	protein_coding	ENSMUSG0000003429.11	27207
Rbm43	0.57	0.041	protein_coding	ENSMUSG00000036249.16	71684
Atp5o	0.57	0.034	protein_coding	ENSMUSG00000022956.10	28080
Dyrk1a	0.56	0.009	protein_coding	ENSMUSG00000022897.14	13548
Dpp7	0.56	0.028	protein_coding	ENSMUSG00000026958.13	83768
Gm12174	0.56	0.048	processed_pseudogene	ENSMUSG00000080776.1	NA
Rpl7	0.56	0.023	protein_coding	ENSMUSG00000043716.13	19989
Rpl19	0.56	0.017	protein_coding	ENSMUSG00000017404.12	19921
Twf2	0.56	0.019	protein_coding	ENSMUSG00000023277.11	NA
Ifnar1	0.56	0.020	protein_coding	ENSMUSG00000022967.12	15975
Rpl5	0.56	0.026	protein_coding	ENSMUSG00000058558.12	100503670
Tpt1-ps3	0.56	0.045	processed_pseudogene	ENSMUSG00000084319.3	NA
Rpl14	0.56	0.020	protein_coding	ENSMUSG00000025794.8	67115
Otulin	0.55	0.020	protein_coding	ENSMUSG00000046034.7	432940
Ripk3	0.55	0.043	protein_coding	ENSMUSG00000022221.13	56532
1110004E09Rik	0.55	0.048	protein_coding	ENSMUSG00000022972.9	68001
Tpt1	0.55	0.020	protein_coding	ENSMUSG00000060126.14	22070
Sema4b	0.55	0.047	protein_coding	ENSMUSG00000030539.13	20352
Npm1	0.55	0.025	protein_coding	ENSMUSG00000057113.13	NA
Lpcat4	0.54	0.049	protein_coding	ENSMUSG00000027134.4	99010
Mfsd10	0.54	0.031	protein_coding	ENSMUSG00000001082.12	68294
Rpl18	0.54	0.015	protein_coding	ENSMUSG00000059070.16	19899
Ppp1r11	0.54	0.041	protein_coding	ENSMUSG00000036398.13	76497
Nsa2	0.54	0.029	protein_coding	ENSMUSG00000060739.7	59050
Eef1b2	0.54	0.020	protein_coding	ENSMUSG00000025967.16	55949
Scly	0.53	0.013	protein_coding	ENSMUSG00000026307.12	50880

Gart	0.53	0.007	protein_coding	ENSMUSG00000022962.14	14450
Naa10	0.53	0.020	protein_coding	ENSMUSG00000031388.14	56292
Rpl9-ps6	0.53	0.017	protein_coding	ENSMUSG00000062456.3	NA
Rps19	0.53	0.022	protein_coding	ENSMUSG00000040952.16	20085
Rps10-ps2	0.53	0.050	processed_pseudogene	ENSMUSG00000099764.1	NA
Rpl10	0.53	0.034	protein_coding	ENSMUSG0000008682.13	110954
Rwdd2b	0.52	0.048	protein_coding	ENSMUSG00000041079.11	53858
Socs2	0.52	0.048	protein_coding	ENSMUSG00000020027.18	216233
Syng2	0.52	0.019	protein_coding	ENSMUSG00000048277.15	20973
Gm3362	0.52	0.028	processed_pseudogene	ENSMUSG00000085442.1	NA
Scaf8	0.52	0.015	protein_coding	ENSMUSG00000046201.8	106583
Rpl8	0.52	0.020	protein_coding	ENSMUSG0000003970.8	26961
Cpe	0.52	0.026	protein_coding	ENSMUSG00000037852.8	12876
Usp16	0.51	0.007	protein_coding	ENSMUSG00000025616.14	74112
Impdh2	0.51	0.032	protein_coding	ENSMUSG00000062867.13	23918
Ccdc12	0.51	0.031	protein_coding	ENSMUSG00000019659.8	72654
Rhog	0.51	0.044	protein_coding	ENSMUSG00000073982.11	56212
Rpl3	0.51	0.042	protein_coding	ENSMUSG00000060036.13	27367

Table S6

## Liver up-regulated DEGs

Gene Symbol	Log2(FC)	Adj.p-Value	Gene Type	GencodeID	EntrezID
Sptlc3	5.94	0.036	protein_coding	ENSMUSG00000039092.9	NA
Mup-ps4	5.39	0.037	unprocessed_pseudogene	ENSMUSG00000078685.6	NA
Sall4	4.65	0.023	protein_coding	ENSMUSG00000027547.17	99377
Tic9	4.60	0.027	protein_coding	ENSMUSG00000042734.5	69480
Anxa8	3.99	0.030	protein_coding	ENSMUSG00000021950.15	11752
Mup-ps10	3.90	0.036	unprocessed_pseudogene	ENSMUSG00000082173.1	NA
A4gnt	3.82	0.035	protein_coding	ENSMUSG00000037953.7	333424
Mep1b	3.73	0.026	protein_coding	ENSMUSG00000024313.7	17288
Ccdc92	3.70	0.027	protein_coding	ENSMUSG00000037979.13	215707
Prkd1	3.46	0.027	protein_coding	ENSMUSG0000002688.7	18760
Gm26736	3.39	0.048	TEC	ENSMUSG00000097464.1	NA
Clec4e	3.31	0.033	protein_coding	ENSMUSG00000030142.10	56619
Rassf10	3.28	0.049	protein_coding	ENSMUSG00000098132.1	78748
Sapcd1	3.27	0.037	protein_coding	ENSMUSG00000036185.9	78376
Scn8a	3.25	0.027	protein_coding	ENSMUSG00000023033.14	20273
RP23-31314.7	3.23	0.047	protein_coding	ENSMUSG00000011071.0	NA
Gm26797	3.20	0.027	lincRNA	ENSMUSG00000097572.1	NA
Col1a1	3.17	0.037	protein_coding	ENSMUSG00000001506.10	12842
Igkv9-120	3.16	0.030	IG_V_gene	ENSMUSG00000094872.1	NA
Klrc1	3.10	0.022	protein_coding	ENSMUSG00000030167.15	16641
Cxcl2	3.10	0.037	protein_coding	ENSMUSG00000058427.10	20310
Igkv3-12	3.04	0.031	IG_V_gene	ENSMUSG00000094117.1	NA
Gm44619	2.97	0.044	lincRNA	ENSMUSG000000109141.1	NA
Dcst1	2.91	0.031	protein_coding	ENSMUSG00000042672.15	NA
Gnai1	2.90	0.033	protein_coding	ENSMUSG00000057614.6	14677
Ighv8-8	2.89	0.023	IG_V_gene	ENSMUSG000000104452.1	NA
Cyp4a12b	2.88	0.043	protein_coding	ENSMUSG0000007897.2	13118
Anks6	2.88	0.026	protein_coding	ENSMUSG00000066191.11	75691
Fam83a	2.86	0.030	protein_coding	ENSMUSG00000051225.9	239463
1700112E06Rik	2.75	0.036	protein_coding	ENSMUSG00000063458.12	76633
Gm10916	2.68	0.049	processed_pseudogene	ENSMUSG00000078125.2	NA
Cd4207	2.67	0.047	protein_coding	ENSMUSG00000034783.7	246278
Gm15922	2.65	0.049	polymorphic_pseudogene	ENSMUSG00000081665.2	18722
Tmem40	2.62	0.027	protein_coding	ENSMUSG00000059900.14	94346
8030453022Rik	2.58	0.039	processed_transcript	ENSMUSG00000085058.2	77209
Scube1	2.53	0.026	protein_coding	ENSMUSG00000016763.14	64706
Tmem119	2.51	0.039	protein_coding	ENSMUSG00000054675.5	231633
H2-M2	2.43	0.035	protein_coding	ENSMUSG00000016283.13	14990
Rpl36a-ps1	2.39	0.044	processed_pseudogene	ENSMUSG00000060377.3	NA
Fkbp10	2.37	0.033	protein_coding	ENSMUSG00000001555.10	14230
Aebp1	2.34	0.022	protein_coding	ENSMUSG00000020473.13	11568
B430212C06Rik	2.27	0.044	processed_transcript	ENSMUSG00000046415.11	338360
Fgd1	2.16	0.037	protein_coding	ENSMUSG00000025265.14	14163
Fhd1c1	2.16	0.033	protein_coding	ENSMUSG000000041842.15	229474
S100a11	2.11	0.042	protein_coding	ENSMUSG00000027907.4	20195
Lgals3	2.09	0.044	protein_coding	ENSMUSG00000050355.16	16854
Col6a2	2.09	0.037	protein_coding	ENSMUSG00000020241.13	12834
Col5a2	2.07	0.015	protein_coding	ENSMUSG00000026042.16	12832
Fndc10	2.06	0.045	protein_coding	ENSMUSG000000074738.2	230991
Col1a2	2.03	0.048	protein_coding	ENSMUSG00000029661.16	12843
Pf4	1.99	0.028	protein_coding	ENSMUSG00000029373.7	56744
Cyp17a1	1.95	0.029	protein_coding	ENSMUSG00000003555.7	13074
Adap1	1.93	0.023	protein_coding	ENSMUSG00000056413.16	231821
Col4a5	1.89	0.042	protein_coding	ENSMUSG000000031274.16	12830
Dzip11	1.88	0.041	protein_coding	ENSMUSG00000037784.14	72507
Adamts5	1.81	0.031	protein_coding	ENSMUSG00000022894.5	23794
Gpx3	1.81	0.009	protein_coding	ENSMUSG00000018339.11	14778
Htra1	1.78	0.030	protein_coding	ENSMUSG00000006205.13	56213
Cd63	1.74	0.030	protein_coding	ENSMUSG00000002531.13	12512
Ezr	1.74	0.026	protein_coding	ENSMUSG00000052397.8	22350
4632428C04Rik	1.72	0.035	lincRNA	ENSMUSG00000097184.1	100043102
Cx3c11	1.72	0.044	protein_coding	ENSMUSG000000031778.13	20312
Npdc1	1.72	0.033	protein_coding	ENSMUSG00000015094.16	18146
Col6a1	1.70	0.029	protein_coding	ENSMUSG0000000119.7	12833
Col3a1	1.67	0.037	protein_coding	ENSMUSG00000026043.18	12825
Txbk1	1.65	0.015	protein_coding	ENSMUSG00000015599.8	106763
Loxl2	1.62	0.043	protein_coding	ENSMUSG00000034205.16	94352
Prrx1	1.59	0.042	protein_coding	ENSMUSG00000026586.16	18933
Slc35f2	1.58	0.023	protein_coding	ENSMUSG000000042195.8	72022
Fgfr1	1.55	0.035	protein_coding	ENSMUSG000000031565.18	14182
Pik7	1.53	0.027	protein_coding	ENSMUSG000000023972.9	71461
Tnfrsf23	1.53	0.037	protein_coding	ENSMUSG000000037613.16	79201
Ifit2	1.50	0.036	protein_coding	ENSMUSG00000045932.12	15958
Arhgap10	1.50	0.037	protein_coding	ENSMUSG000000037148.8	78514
Ifit212b	1.48	0.046	protein_coding	ENSMUSG00000021208.9	217845
Sirpa	1.48	0.041	protein_coding	ENSMUSG00000037902.18	19261
Atp8b2	1.46	0.036	protein_coding	ENSMUSG000000060671.12	54667
Vim	1.45	0.031	protein_coding	ENSMUSG000000026728.9	22352
Septn1	1.45	0.027	protein_coding	ENSMUSG00000050989.9	74777
Mmp2	1.43	0.044	protein_coding	ENSMUSG000000031740.8	17390
Serpinb6b	1.43	0.042	protein_coding	ENSMUSG00000042842.10	20708
Mx1	1.43	0.040	protein_coding	ENSMUSG00000000386.14	NA
Entpd2	1.43	0.027	protein_coding	ENSMUSG00000015085.8	12496
Ddr1	1.40	0.030	protein_coding	ENSMUSG00000003534.17	12305
Hlcs	1.38	0.022	protein_coding	ENSMUSG00000040820.15	110948
Vopp1	1.37	0.031	protein_coding	ENSMUSG000000037788.14	232023
Olfml3	1.33	0.031	protein_coding	ENSMUSG000000027848.12	99543
Pdlim2	1.32	0.026	protein_coding	ENSMUSG000000022090.10	213019
Ccdc80	1.32	0.030	protein_coding	ENSMUSG00000022665.14	67896
Tmsb10	1.31	0.041	protein_coding	ENSMUSG000000079523.8	19240
Agap2	1.31	0.035	protein_coding	ENSMUSG000000025422.8	216439
Cd74	1.29	0.043	protein_coding	ENSMUSG000000024610.14	16149
Ugt1a9	1.27	0.040	protein_coding	ENSMUSG000000090175.1	394434
Gm12166	1.27	0.026	protein_coding	ENSMUSG00000069899.3	NA
Itih5	1.25	0.049	protein_coding	ENSMUSG000000025780.7	209378
Gm26719	1.24	0.044	lincRNA	ENSMUSG00000097364.1	NA

## Liver down-regulated DEGs

Gene Symbol	Log2(FC)	Adj.p-Value	Gene Type	GencodeID	EntrezID
Gm27206	-3.79	0.045	antisense	ENSMUSG00000098889.1	NA
493056N13Rik	-3.41	0.033	antisense	ENSMUSG00000092399.1	75285
Gm867	-3.41	0.031	antisense	ENSMUSG00000050157.5	333670
Gm19721	-3.36	0.023	TEC	ENSMUSG00000010232.4	NA
Crybg3	-3.13	0.028	processed_transcript	ENSMUSG00000091562.3	NA
D430018E03Rik	-3.12	0.049	sense_intronic	ENSMUSG00000097559.1	NA
322440L13Rik	-3.04	0.030	lincRNA	ENSMUSG00000073590.3	NA
Gm43116	-2.96	0.030	processed_pseudogene	ENSMUSG000000104754.1	NA
Gm17812	-2.84	0.022	processed_pseudogene	ENSMUSG000000108125.1	NA
Gm43611	-2.82	0.026	TEC	ENSMUSG000000106030.1	NA
Gm15890	-2.80	0.044	antisense	ENSMUSG00000090105.2	NA
Gm23084	-2.75	0.037	rRNA	ENSMUSG00000088475.1	NA
Gm27651	-2.73	0.030	misc_RNA	ENSMUSG00000098755.1	NA
Gm17024	-2.72	0.031	antisense	ENSMUSG00000090582.1	NA
Lcor	-2.64	0.026	protein_coding	ENSMUSG00000025019.15	212391
Gsta2	-2.64	0.036	protein_coding	ENSMUSG00000057933.10	14858
4933411K16Rik	-2.60	0.031	protein_coding	ENSMUSG00000090369.3	66765
Gm26890	-2.50	0.033	lincRNA	ENSMUSG00000097246.1	NA
Gm22881	-2.46	0.045	snoRNA	ENSMUSG000000088372.1	115486364
F830016B08Rik	-2.43	0.009	protein_coding	ENSMUSG00000090942.1	240328
Pkdrej	-2.40	0.033	protein_coding	ENSMUSG00000052496.4	18766
A930004J17Rik	-2.40	0.022	TEC	ENSMUSG000000102602.1	NA
Gm38394	-2.37	0.040	protein_coding	ENSMUSG00000094410.7	667118
Dnajb3	-2.28	0.043	protein_coding	ENSMUSG00000081984.3	15504
Gm38077	-2.24	0.031	TEC	ENSMUSG000000104344.1	NA
Gm20274	-2.23	0.033	sense_intronic	ENSMUSG000000108551.1	NA
2610306G10Rik	-2.17	0.023	TEC	ENSMUSG000000108614.1	NA
RP24-464B16.1	-2.15	0.037	TEC	ENSMUSG000000109836.1	NA
Ccdc74a	-2.07	0.034	protein_coding	ENSMUSG00000041617.10	72315
Hpkp2	-2.05	0.003	protein_coding	ENSMUSG000000061436.15	15258
Gm20476	-2.04	0.029	antisense	ENSMUSG00000092364.2	NA
Uckl1c	-2.02	0.046	antisense	ENSMUSG0000001092.10	100271841
RP23-466C10.2	-2.00	0.033	TEC	ENSMUSG000000110397.1	NA
Gm3807	-1.94	0.049	TEC	ENSMUSG000000102881.1	NA
Zfp871	-1.80	0.015	protein_coding	ENSMUSG00000024298.14	208292
Tmem253	-1.74	0.031	protein_coding	ENSMUSG000000072571.2	619301
Lmbrd2	-1.74	0.015	protein_coding	ENSMUSG000000039704.6	320506
Srcep	-1.74	0.021	protein_coding	ENSMUSG00000053877.12	100043597
Soga1	-1.73	0.045	protein_coding	ENSMUSG00000055485.6	320706
Mir1968	-1.62	0.048	miRNA	ENSMUSG000000088054.1	100316713
RP24-252B21.3	-1.58	0.034	TEC	ENSMUSG000000108825.1	NA
Gm43481	-1.56	0.026	TEC	ENSMUSG000000107000.1	NA
9030616G12Rik	-1.55	0.031	lincRNA	ENSMUSG00000097691.1	77699
1700109H08Rik	-1.55	0.027	protein_coding	ENSMUSG000000008307.11	77036
RP24-286J21.7	-1.52	0.026	lincRNA	ENSMUSG000000110631.1	NA
Gpr17	-1.50	0.045	protein_coding	ENSMUSG00000052229.5	574402
Trim80	-1.48	0.027	protein_coding	ENSMUSG00000070332.4	432613
Cep851	-1.39	0.032	protein_coding	ENSMUSG00000038594.8	100038725
Foxn3	-1.38	0.027	protein_coding	ENSMUSG00000033713.11	71375
D330041H03Rik	-1.34	0.044	processed_transcript	ENSMUSG00000073437.10	654822
Gm13021	-1.34	0.034	lincRNA	ENSMUSG000000086437.2	102637389
Pdpr	-1.34	0.016	protein_coding	ENSMUSG000000033624.10	319518
Lnpep	-1.31	0.042	protein_coding	ENSMUSG00000023845.6	240028
Nr2c2	-1.28	0.049	protein_coding	ENSMUSG00000005893.14	22026
Prdm10	-1.26	0.044	protein_coding	ENSMUSG00000042496.7	382066
A330023F24Rik	-1.25	0.037	processed_transcript	ENSMUSG000000096929.7	NA
Gm3336	-1.20	0.035	protein_coding	ENSMUSG00000095026.2	100502950
Lrit1	-1.15	0.049	protein_coding	ENSMUSG00000041044.9	239037
Eph5	-1.14	0.031	protein_coding	ENSMUSG00000034584.3	320051
Kihl3	-1.12	0.027	protein_coding	ENSMUSG000000014164.14	100503085
Ccl25	-1.10	0.022	protein_coding	ENSMUSG00000023235.14	20300
Kif12	-1.09	0.033	protein_coding	ENSMUSG000000072294.4	167294
Malat1	-1.06	0.036	lincRNA	ENSMUSG00000092341.2	72289
Cep97	-1.04	0.036	protein_coding	ENSMUSG000000022604.18	74201
Ubr4	-1.04	0.003	protein_coding	ENSMUSG00000066036.14	69116
Kmt2a	-1.03	0.022	protein_coding	ENSMUSG00000002028.12	214162
Atm	-1.03	0.031	protein_coding	ENSMUSG000000034218.15	11920
Sned1	-0.97	0.015	protein_coding	ENSMUS	



Pygb	1.24	0.022	protein_coding	ENSMUSG00000033059.7	110078	Ago3	-0.69	0.026	protein_coding	ENSMUSG00000028842.15	214150
Cldn14	1.22	0.038	protein_coding	ENSMUSG00000047109.12	56173	Itn2	-0.68	0.033	protein_coding	ENSMUSG00000020640.9	20403
Rarres1	1.21	0.049	protein_coding	ENSMUSG00000044904.7	NA	Dennd5b	-0.68	0.016	protein_coding	ENSMUSG00000030313.15	320560
Ifngr2	1.20	0.028	protein_coding	ENSMUSG00000022965.7	15980	Dock9	-0.65	0.044	protein_coding	ENSMUSG00000025558.16	105445
Dynd1l-ps1	1.19	0.040	processed_pseudogene	ENSMUSG00000082691.6	NA	Htatip2	-0.65	0.045	protein_coding	ENSMUSG00000039745.8	53415
Gm26809	1.19	0.030	lincRNA	ENSMUSG00000097815.1	NA	Tncf6b	-0.64	0.027	protein_coding	ENSMUSG00000047888.9	213988
Col4a2	1.18	0.040	protein_coding	ENSMUSG00000031503.13	12827	Ikbkg	-0.64	0.035	protein_coding	ENSMUSG0000004221.16	16151
Ntrk2	1.17	0.023	protein_coding	ENSMUSG00000052524.14	18212	Deptor	-0.63	0.033	protein_coding	ENSMUSG00000022419.15	97998
Nid1	1.16	0.031	protein_coding	ENSMUSG00000005397.7	18073	Vps13d	-0.63	0.021	protein_coding	ENSMUSG00000020220.16	230895
Dtx3	1.16	0.026	protein_coding	ENSMUSG00000040415.15	80904	Hnf1a	-0.63	0.023	protein_coding	ENSMUSG00000029556.12	21405
Synj2	1.15	0.032	protein_coding	ENSMUSG00000023805.16	20975	Gabpb2	-0.63	0.021	protein_coding	ENSMUSG00000038766.16	213054
Gm10030	1.15	0.030	processed_transcript	ENSMUSG00000057802.8	791282	Srrm2	-0.63	0.029	protein_coding	ENSMUSG00000039218.16	75956
Serpin1a2	1.14	0.046	protein_coding	ENSMUSG00000041567.3	68054	Zbb20	-0.63	0.028	protein_coding	ENSMUSG00000022708.16	56490
Pkm	1.13	0.026	protein_coding	ENSMUSG00000032294.16	18746	Ubn2	-0.63	0.023	protein_coding	ENSMUSG00000038538.17	320538
Aco9	1.07	0.043	protein_coding	ENSMUSG00000025287.15	56360	Kmt2d	-0.62	0.030	protein_coding	ENSMUSG00000048154.16	381022
Iil10b	1.07	0.042	protein_coding	ENSMUSG00000022969.13	16155	Cbx5	-0.61	0.025	protein_coding	ENSMUSG00000009575.14	12419
Poelce	1.06	0.026	protein_coding	ENSMUSG00000029718.14	18542	Usp34	-0.61	0.027	protein_coding	ENSMUSG000000056342.16	17847
Tgfb2	1.04	0.035	protein_coding	ENSMUSG00000032440.12	NA	Chd2	-0.60	0.030	protein_coding	ENSMUSG00000078671.11	244059
Ptgm	1.01	0.047	protein_coding	ENSMUSG00000027864.9	19221	Xpnp3	-0.60	0.035	protein_coding	ENSMUSG00000022401.11	321003
App	1.00	0.009	protein_coding	ENSMUSG00000022892.10	11820	Kmt2c	-0.60	0.026	protein_coding	ENSMUSG00000038055.15	231051
Icam1	0.99	0.044	protein_coding	ENSMUSG00000037405.7	15894	Edrf1	-0.60	0.015	protein_coding	ENSMUSG00000039990.16	214764
Rsph3a	0.97	0.030	protein_coding	ENSMUSG00000073471.2	66832	Ankr28	-0.59	0.044	protein_coding	ENSMUSG00000014496.7	105522
Sytl1	0.96	0.035	protein_coding	ENSMUSG00000028860.13	269589	Otud3	-0.59	0.046	protein_coding	ENSMUSG00000004161.8	73162
Ets2	0.96	0.009	protein_coding	ENSMUSG00000022895.14	23872	Wdfy3	-0.59	0.011	protein_coding	ENSMUSG00000043940.15	72145
Ifnar2	0.94	0.021	protein_coding	ENSMUSG00000022971.18	15976	Sng1	-0.59	0.027	protein_coding	ENSMUSG000000030655.15	233789
Rhbdf1	0.93	0.026	protein_coding	ENSMUSG00000020282.18	13650	Kif1b	-0.59	0.027	protein_coding	ENSMUSG00000063077.14	16561
Pigp	0.91	0.016	protein_coding	ENSMUSG00000022940.16	56176	Ep400	-0.59	0.026	protein_coding	ENSMUSG00000029505.17	75560
Farp1	0.90	0.037	protein_coding	ENSMUSG00000025555.14	223254	Pwyp2a	-0.58	0.041	protein_coding	ENSMUSG00000044950.7	70802
Pea15a	0.89	0.026	protein_coding	ENSMUSG00000013698.12	18611	Zfp318	-0.58	0.026	protein_coding	ENSMUSG00000015597.16	57908
Mfge8	0.89	0.027	protein_coding	ENSMUSG00000030605.15	17304	Abcc6	-0.58	0.033	protein_coding	ENSMUSG00000030834.7	27421
Mrap	0.87	0.026	protein_coding	ENSMUSG00000039956.8	NA	Cds2	-0.58	0.009	protein_coding	ENSMUSG00000058793.14	110911
Sod3	0.86	0.023	protein_coding	ENSMUSG00000072941.5	20657	Dync1h1	-0.58	0.021	protein_coding	ENSMUSG00000018707.13	13424
Ifnar1	0.85	0.023	protein_coding	ENSMUSG00000022967.12	15975	Nufip2	-0.57	0.031	protein_coding	ENSMUSG000000037857.16	68564
Arhg2	0.85	0.026	protein_coding	ENSMUSG00000025132.13	192662	Utrn	-0.57	0.033	protein_coding	ENSMUSG00000019820.9	22288
Nagk	0.83	0.030	protein_coding	ENSMUSG00000034744.13	56174	Spn	-0.57	0.031	protein_coding	ENSMUSG00000040761.16	56381
Csrp1	0.83	0.044	protein_coding	ENSMUSG00000026421.14	13007	Trap	-0.57	0.026	protein_coding	ENSMUSG00000045482.16	100683
Gtf2h5	0.82	0.009	protein_coding	ENSMUSG00000034345.14	66467	Map3k2	-0.57	0.009	protein_coding	ENSMUSG00000023483.8	26405
Pla2g15	0.82	0.028	protein_coding	ENSMUSG00000031903.7	192654	Nipbl	-0.57	0.027	protein_coding	ENSMUSG00000022141.6	71175
Rwdd2b	0.81	0.025	protein_coding	ENSMUSG00000041079.11	53858	Fryl	-0.57	0.024	protein_coding	ENSMUSG00000070733.13	72313
Rnaset2a	0.78	0.029	protein_coding	ENSMUSG00000095687.1	100037283	Tmem245	-0.56	0.035	protein_coding	ENSMUSG00000055296.14	242474
Large	0.78	0.044	protein_coding	ENSMUSG00000004383.18	16795	Nlrp6	-0.56	0.046	protein_coding	ENSMUSG000000037857.16	101613
Scamp5	0.76	0.043	protein_coding	ENSMUSG00000040722.6	56807	Atrx	-0.56	0.023	protein_coding	ENSMUSG00000031229.16	22589
Tagap1	0.75	0.023	protein_coding	ENSMUSG000000052031.7	380608	Nktr	-0.55	0.023	protein_coding	ENSMUSG00000032525.14	18087
Magee1	0.74	0.033	protein_coding	ENSMUSG00000031227.8	107528	Marf1	-0.55	0.035	protein_coding	ENSMUSG000000060657.7	223989
Tmem242	0.73	0.015	protein_coding	ENSMUSG00000004945.15	70544	Pppf4b	-0.55	0.028	protein_coding	ENSMUSG00000021413.8	19134
Bgn	0.73	0.031	protein_coding	ENSMUSG00000031375.17	12111	Prc2c	-0.55	0.027	protein_coding	ENSMUSG000000040225.15	226562
Gim1	0.73	0.037	protein_coding	ENSMUSG00000040006.13	215751	Elk4	-0.54	0.032	protein_coding	ENSMUSG00000026436.15	13714
Mpp6	0.73	0.026	protein_coding	ENSMUSG00000039680.9	121022	Cep350	-0.54	0.022	protein_coding	ENSMUSG00000033671.18	74081
Rogdi	0.71	0.046	protein_coding	ENSMUSG00000022540.16	66049	Zfp397	-0.54	0.042	protein_coding	ENSMUSG00000024276.6	69256
Dscr3	0.71	0.030	protein_coding	ENSMUSG00000022898.12	13185	Lrrc58	-0.53	0.049	protein_coding	ENSMUSG00000034158.9	320184
Emilin1	0.69	0.033	protein_coding	ENSMUSG00000029163.9	100952	Herc1	-0.53	0.023	protein_coding	ENSMUSG00000038664.16	235439
Tcf3	0.66	0.021	protein_coding	ENSMUSG00000020167.14	21423	Cramp1	-0.53	0.033	protein_coding	ENSMUSG00000038002.8	57354
Snx9	0.66	0.021	protein_coding	ENSMUSG00000002365.9	66616	Dnajb1	-0.53	0.032	protein_coding	ENSMUSG00000005483.10	81489
Ttc3	0.66	0.029	protein_coding	ENSMUSG00000040785.18	22129	Mtfp1	-0.52	0.040	protein_coding	ENSMUSG00000004748.5	67900
Zfp513	0.66	0.031	protein_coding	ENSMUSG00000043059.16	101023	Kat6a	-0.52	0.044	protein_coding	ENSMUSG00000031540.13	244349
Rgl2	0.65	0.022	protein_coding	ENSMUSG000000041354.15	19732	Rnf214	-0.52	0.036	protein_coding	ENSMUSG00000042790.15	235315
Igsf5	0.63	0.025	protein_coding	ENSMUSG0000000159.15	72058	Ubr5	-0.52	0.031	protein_coding	ENSMUSG00000037487.6	70790
Psmg1	0.62	0.031	protein_coding	ENSMUSG00000022913.14	56088	Macf1	-0.51	0.047	protein_coding	ENSMUSG00000028649.17	11426
Cygb	0.61	0.044	protein_coding	ENSMUSG00000020810.5	114886	Birc6	-0.51	0.026	protein_coding	ENSMUSG00000024073.14	12211
Dnajc28	0.61	0.044	protein_coding	ENSMUSG00000039763.9	246738	Dusp11	-0.51	0.041	protein_coding	ENSMUSG00000030002.15	72102
Gm26917	0.59	0.027	lincRNA	ENSMUSG00000097971.3	NA	Pigm	-0.51	0.037	protein_coding	ENSMUSG000000052029.3	67556
1110004E09Rik	0.59	0.033	protein_coding	ENSMUSG00000022972.9	68001	Mycbp2	-0.51	0.033	protein_coding	ENSMUSG00000033004.14	105689
Dyrk1a	0.59	0.038	protein_coding	ENSMUSG00000022897.14	13548	Hook1	-0.51	0.023	protein_coding	ENSMUSG00000028572.13	77963
Gm10275	0.58	0.031	transcribed_processed_pseudogene	ENSMUSG00000066982.5	NA	Ralgapa2	-0.50	0.046	protein_coding	ENSMUSG00000037110.19	241694
Crlf2	0.57	0.031	protein_coding	ENSMUSG00000033467.12	57914	Dido1	-0.50	0.026	protein_coding	ENSMUSG00000038914.15	23856
Tgfb1	0.57	0.031	protein_coding	ENSMUSG00000035493.9	NA						
Scaf8	0.57	0.047	protein_coding	ENSMUSG00000046201.8	106583						
Hmgn1	0.56	0.026	protein_coding	ENSMUSG00000040681.14	15312						
Cryz1l	0.55	0.029	protein_coding	ENSMUSG00000058240.13	66609						
Parp3	0.55	0.030	protein_coding	ENSMUSG00000023249.14	235587						
Itm2c	0.54	0.044	protein_coding	ENSMUSG00000026223.15	64294						
Krcc1	0.53	0.040	protein_coding	ENSMUSG00000053012.17	NA						
Nap1l1	0.52	0.045	protein_coding	ENSMUSG00000058799.14	53605						
Fgfr1op	0.52	0.033	protein_coding	ENSMUSG00000069135.11	75296						
Rplp1	0.52	0.023	protein_coding	ENSMUSG00000007892.7	NA						
Ifngr1	0.51	0.040	protein_coding	ENSMUSG00000020009.12	15979						
Plvap	0.51	0.048	protein_coding	ENSMUSG00000034845.6	84094						
Usp16	0.50	0.037	protein_coding	ENSMUSG00000025616.14	74112						
Cct8	0.50	0.028	protein_coding	ENSMUSG00000025613.13	12469						