Supplementary Methods and Materials:

1.1 Spp virus generation

Spp virus was generated in Phoenix cells after being co-transfected by pLV-mCherry and pcDNA-Spike using a calcium phosphate kit (ThermoFisher, Waltham, MA, USA), which was previously reported [1]. The supernatant containing Spp virus was harvested 48 to 72-hours post transfection, clarified by centrifuging at 5,000 g for 15 min, followed by passing through 0.45 μm filter disk, and precipitated by ultracentrifuging at 24,000 rpm for 2 hours. The viral pellets were resuspended in cold PBS buffer, aliquoted, and stored at -80 °C before use. The viral particle number was determined using real time RT-PCR assay. Co-transfection of pLV-mCherry and pMD2.G vector carrying vesicular stomatitis virus glycoprotein (VSV-G) expression cassette were performed to obtain VSV-G lentivirus [1].

1.2 Real time RT-PCR, Western blot, and Immunostaining

RNA extraction kit was obtained from Zymo Research (Irvine, CA, USA) and Qiagen (Hildern, Germany). The RT kit was obtained from Takara Bio USA (Mountain view, CA, USA). The SYBR green master mix was from Biorad (Hercules, CA, USA). For cDNA synthesis, RT reaction was carried out at 42°C for 2 hrs containing 1x RT buffer, 1.0~5 μg of total RNA, 0.5 mM dNTPs, 0.5 μg of oligo (dT) 15-mer primer, 20 units of RNasin, and 5 units of SMART Moloney murine leukemia virus reverse transcriptase. A combined index of three house-keeping genes beta-actin, Rps18 and Nono were used as controls to normalize the amplification data in real time PCR. The real time PCRs were performed as we previously reported [1]. For Western Blot assay, cellular proteins were extracted from hearts and other organs using RIPA lysis buffer (Santa Cruz Biotech., Inc., Dallas, TX, USA), separated by SDS-PAGE, followed by a transfer onto PVDF membranes. Primary antibodies were added and followed by HRP-labeled secondary antibodies. Images were acquired using a Bio-Rad Gel Imaging System (Hercules, CA, USA). GAPDH, beta-actin, and beta-tubulin were used as internal controls.

For immunostaining, hearts from mice were under snap freezing process and approximately 6 μm thick fresh sections were cut and collected. The sections were then fixed by 10% buffered formalin (Fisher Scientific, Pittsburgh, PA, USA), blocked with 5% donkey serum, and incubated in a humidified chamber overnight at 4^{o}C with primary antibodies, followed by fluorescent conjugated secondary antibodies for 2 hours at room temperature. Images were acquired using ImageXpress Pico System (Molecular Device, San Jose, CA, USA) or confocal microscopy system (Carl Zeiss AG, Oberkochen, Germany).

1.3 Cardiac fibrosis staining

The fibrosis in mouse hearts was evaluated using Masson’s trichrome staining (#HT15-1KT, Millipore Sigma). Briefly, the heart cross sections were fixed by Formalin and stained in Weigert's iron hematoxylin working solution, followed by Biebrich scarlet-acid fuchsin solution, phosphomolybdic-phosphotungstic acid solution, and Acetic acid. The sections were dehydrated and mounted. The images were acquired using ImageXpress Pico System (Molecular Device, San Jose, CA, USA). Images from 5-8 sections (60x objective) per heart were analyzed using ImageJ software plug in Color deconvolution 2 and the percentage of fibrotic areas per section

was estimated (n=3 hearts per group). Mann-Whitney test was used to compare the difference among two groups.

Supplementary Discussions:

Statins can upregulate the expression of SR-B1 [2], but such an effect seems unlikely to increase risk of SARS-CoV-2 infection since viral entry can be mitigated by lowering cholesterol levels and altering membrane lipid rafts by statins. Indeed, the use of statins does not alter the SARS-CoV-2 infection in patients [3]. Furthermore, many retrospective observational studies have shown that statin therapy can reduce the risk of severity and mortality and improve prognosis in hospitalized patients with COVID-19 [4, 5]. Mechanistically, statins can attenuate SARS-CoV-2 replication *via* main protease and RNA-dependent RNA polymerase, reduce inflammation, improve endothelial function, decrease risk of thrombosis, and alleviate pulmonary fibrosis in patients with COVID-19 [6, 7]. However, the statin-related side effects such as increase in risk of diabetes may worsen the outcome in inpatients with type 2 diabetes, e.g., elevating COVID-19 related mortality [8].

Pathophysiological mechanisms perpetuating CVD sequelae of PASC are yet to be determined. Both acute and chronic cardiac injuries secondary to SARS-CoV-2 infection are thought to be involved [9]. SARS-CoV-2 virus has been detected in the heart tissue in autopsy studies [10]. Acute infection of SARS-CoV-2 can cause microvascular and myocardial injuries, including endothelialitis, microthrombi, and altered renin-angiotensin homeostasis [11, 12]. In an animal model, SARS-CoV-2 infection results in cardia pericyte loss, fibrosis, cardiomyocyte hypertrophy, and diastolic dysfunction in hamster [13]. The Spike protein alone can damage cardiac pericytes function [14]. In this study, long-term transcriptomic suppression of mitochondria related respiratory genes are revealed after a transient (one time) exposure of the replication-incompetent Spp virus which viral particles are cleared in 3~4 days after administration in obese mice. This data suggests that potential mitochondria malfunction, probably caused by obese-induced inflammatory responses and subsequently exacerbated by viral infections, is a contributor to the long-term cardiac sequelae in COVID-19 patients. The transition from acute cardiac illnesses to chronic phase in PASC may be possibly explained by several putative mechanisms. First is the chronic inflammatory response evoked by SARS-CoV-2 infection or integration of the SARS-CoV-2 genome into host DNA, which can induce a continuous activation of immune-inflammatory cascades and results in persistent endothelial dysfunction and cardiomyopathy [15]. Second, autoimmune antibodies against cardiac antigens are elicited through molecular mimicry in COVID-19, which may contribute to the delayed damages [16].

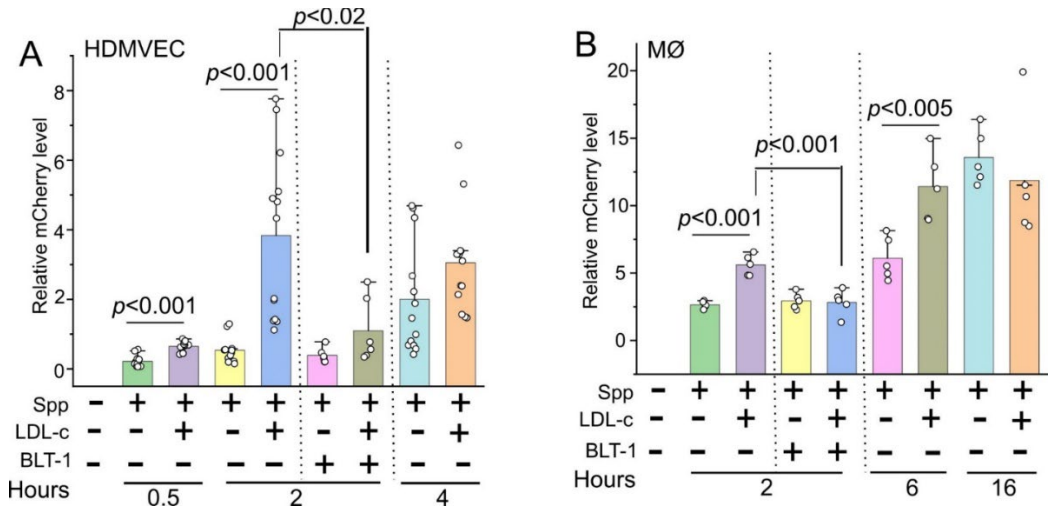
It has been well established that obesity with impaired storage of fat in adipose tissue forces non-adipose tissues, such as the heart, to keep the excess fat, a phenomenon referred to as ectopic fat deposition, which is usually toxic to the non-adipose tissue, i.e. lipotoxicity, leading to obesity-related complications, such as vasculopathy and cardiomyopathy [17, 18]. It is reasonable to posit that SARS-CoV-2 infection interplays thus exacerbates obesity-related cardiac comorbidities. In this study, we have identified upregulations of clusters of genes involving stress signaling, glucose metabolism, and cardiovascular functions. (1) NFE2L1 is a master transcription factor that regulate expression of all the proteasome subunit genes during stress response [19].

Other upregulated DEs with functional characteristics of inflammatory and kinase activity included GBAS, MFN2, GNA12, PI4KB, PIP4K2B, C3, and GIT1. For example, GBAS is localized to mitochondria and plays a role in oxidative phosphorylation and vesicular transport; it can facilitate NF- κB-mediated cytokine production [20]. *MFN2 is a* GTPase embedded in the outer membrane of the mitochondria, involving mitochondria fusion and mitophagy [21]. *(2) Genes involve in glucose metabolisms, such as OGDH, OGDHL, PYGB, and GYS1. OGDHL* is a rate-limiting enzyme in the Krebs cycle that is pivotal in mitochondrial metabolism [22]. *PYGB* regulates glycogen mobilization [23]. Under normal conditions, main source of cardiac ATP is from fatty acid oxidation (FAO), but less from glucose metabolism. With mitochondria dysfunction or metabolic perturbations, cardiac metabolic profiles are impaired by reduction in FAO and concomitant increases in glucose utilization [24, 25]. (3) Gene clusters engage in cardiovascular functions. SCN5A is a tetrodotoxin-resistant voltage-gated sodium channel subunit and primarily expressed in cardiac muscle for the action potential initiation in an electrocardiogram [26]. SLC6A6 is a sodium and chloride ion-dependent taurine neurotransmitter transporter, which deficiency leads to cardiomyopathy [27]. SCARA5 has a function in scavenger receptor activity and ferritin receptor activity, which genetic locus is associated with the susceptibility to venous thromboembolism [28]. PER1 is a member of the Period family of genes for circadian rhythms, which can regulate cardiovascular rhythm centrally (through brain) and peripherally (in the heart) [29-31]. The upregulation of PER1 is probably due to the long-term stress or chronic inflammatory consequence in HDF mice after viral administration. PCSK6 is upregulated in human atherosclerotic plaques associated with smooth muscle cells (SMCs); it induces SMC migration and modulates vascular remodeling [32]. These data demonstrate that long-term chronic inflammations persist in HFD mice after viral administration, leading to cardiac metabolic and functional perturbations.

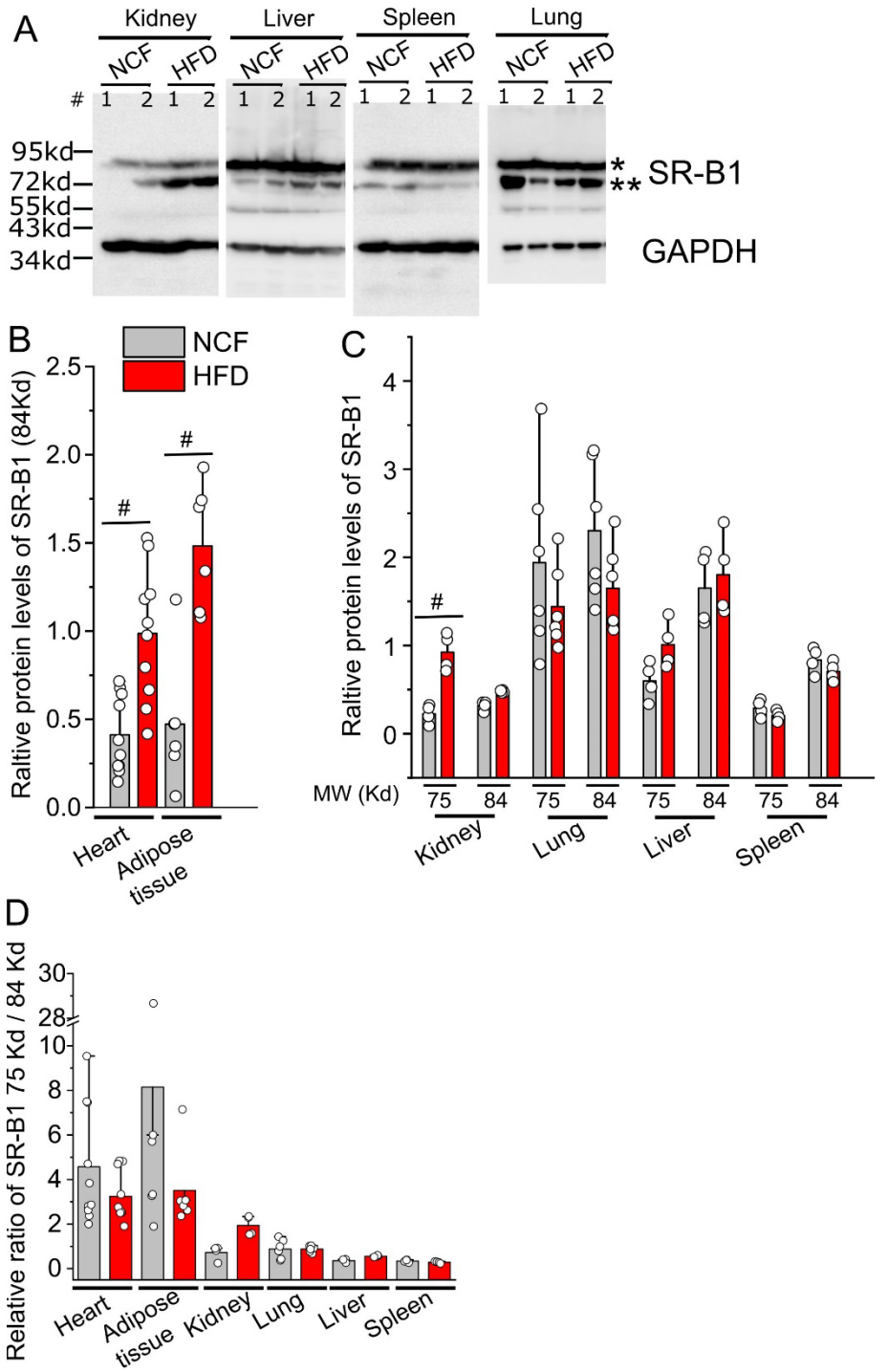
The Spp virus is a replication-incompetent virus. The dosage administered in this study is supraphysiological. The viral burdens were detected in the heart, the liver, kidneys, spleen (around 29~35 Ct values in a real time RT-PCR assay) and lungs (26~30 Ct values) at 2 hpi. At 24 hpi, the Spp virus was hardly detectable in these tissues (33~36 Ct values or negative). Therefore, the viral particles were rapidly and effectively removed from the body. The residual viral burdens retained in the tissues at 2 hpi were in the pathological ranges from the nasal and pharyngeal swab samples in patients (overall median (interquartile range) Ct value: 28.7 (23.9–33.4)) [33]. Our data reflects parts of pathological spectra of PASC. Firstly, exposure of replication-incompetent Spp virus is transient and one time. The viral particles are rapidly cleared and undetectable 3~4 dpi in mice, which can be equivalent to the “viral-free” stage in discharged COVID-19 patients. The timelines from 6 to 24 wpi in this animal model is long enough to mimic potential cardiac sequelae in PASC in patients. Secondly, obesity is associated with and contributes to PASC [34-36]. Our data has demonstrated that cholesterol facilitates viral uptake in host cells and heart is the vulnerable organ for viral accumulation under obesity. Lastly and more importantly, the cardiac functional impairments and fibrotic development have been revealed as long-term sequelae in this model.

The first case series about persistent symptoms after acute COVID-19 was reported in July 2020 in an Italian hospitalized cohort [37], which was posited to be caused by the Wuhan original strain before the Alpha variant emerged to be the dominant variant in the world until January 2021 [38]. Different variants of SARS-CoV-2 may

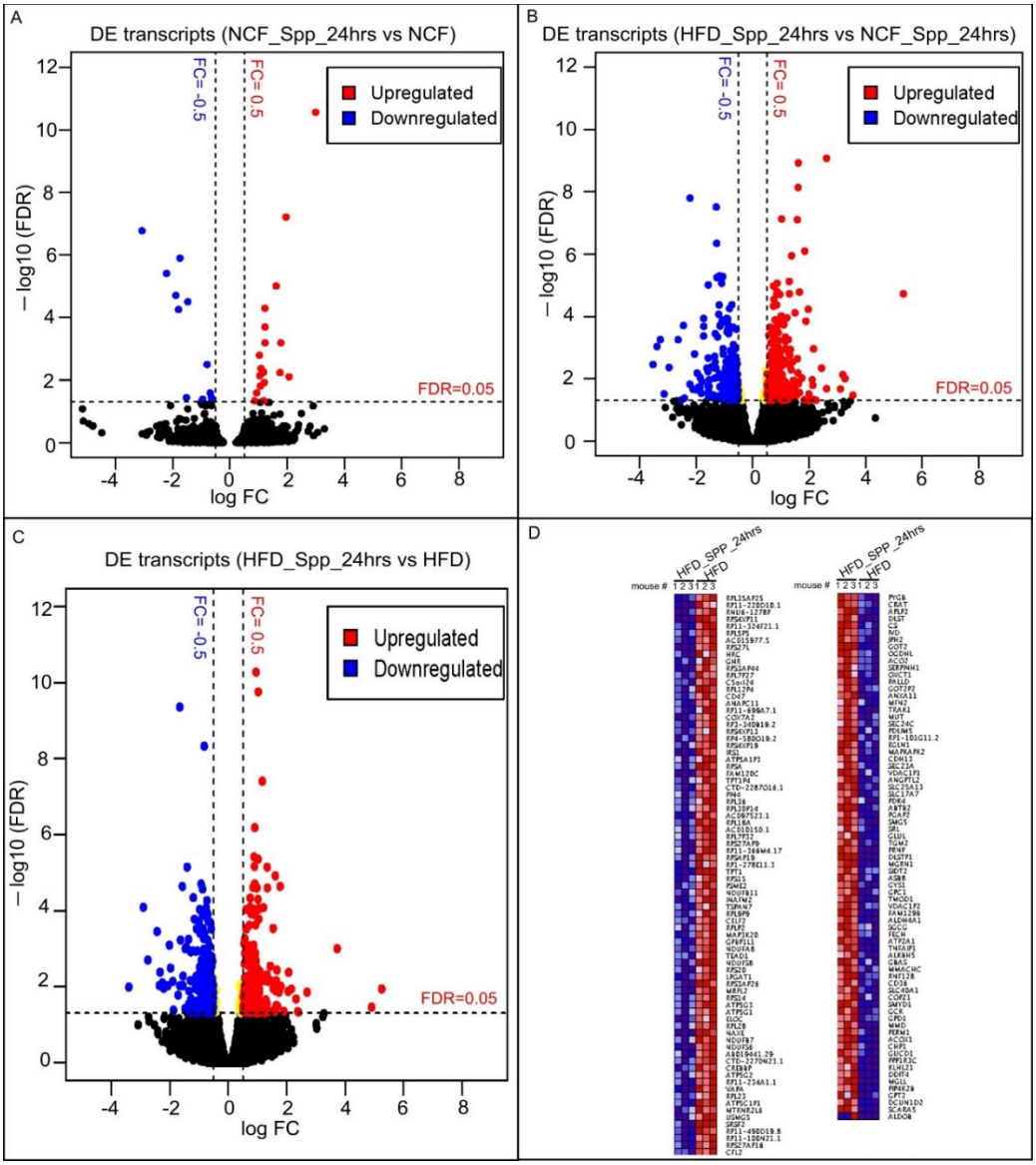
lead to different clinical aspects of PASC. For example, patients infected by the Wuhan variant showed higher incidences of dyspnea than those infected with Alpha or Delta variant [39]. Another report shows that Wuhan variant causes higher occurrences of dysgeusia and anosmia as compared to the Alpha variant in patients [40]. Patients infected by the Omicron variant were less likely to experience PASC than those infected by the delta variant with an odds ratio ranging from 0.24 (0.20–0.32) to 0.50 (0.43–0.59) [41]. It could be expected that PASC from individuals infected with the Wuhan variant would lead to higher burden and health costs than those infected by other variants [39]. The underlying explanations could be as follows. First, the Darwinian evolution of the mutations of Spike protein has led to less pathogenicity but higher transmissibility among VOCs [42, 43]. The Wuhan variant exhibited the highest pathogenicity which led to higher fatalities and likely PASC as well. Second, administration of antiviral medications, e.g., remdesivir, can reduce the risk of PASC [44]. Third, vaccination can reduce PASC [45]. These selective pressures reflected and contributed to the viral evolution and its adaption to a new host.



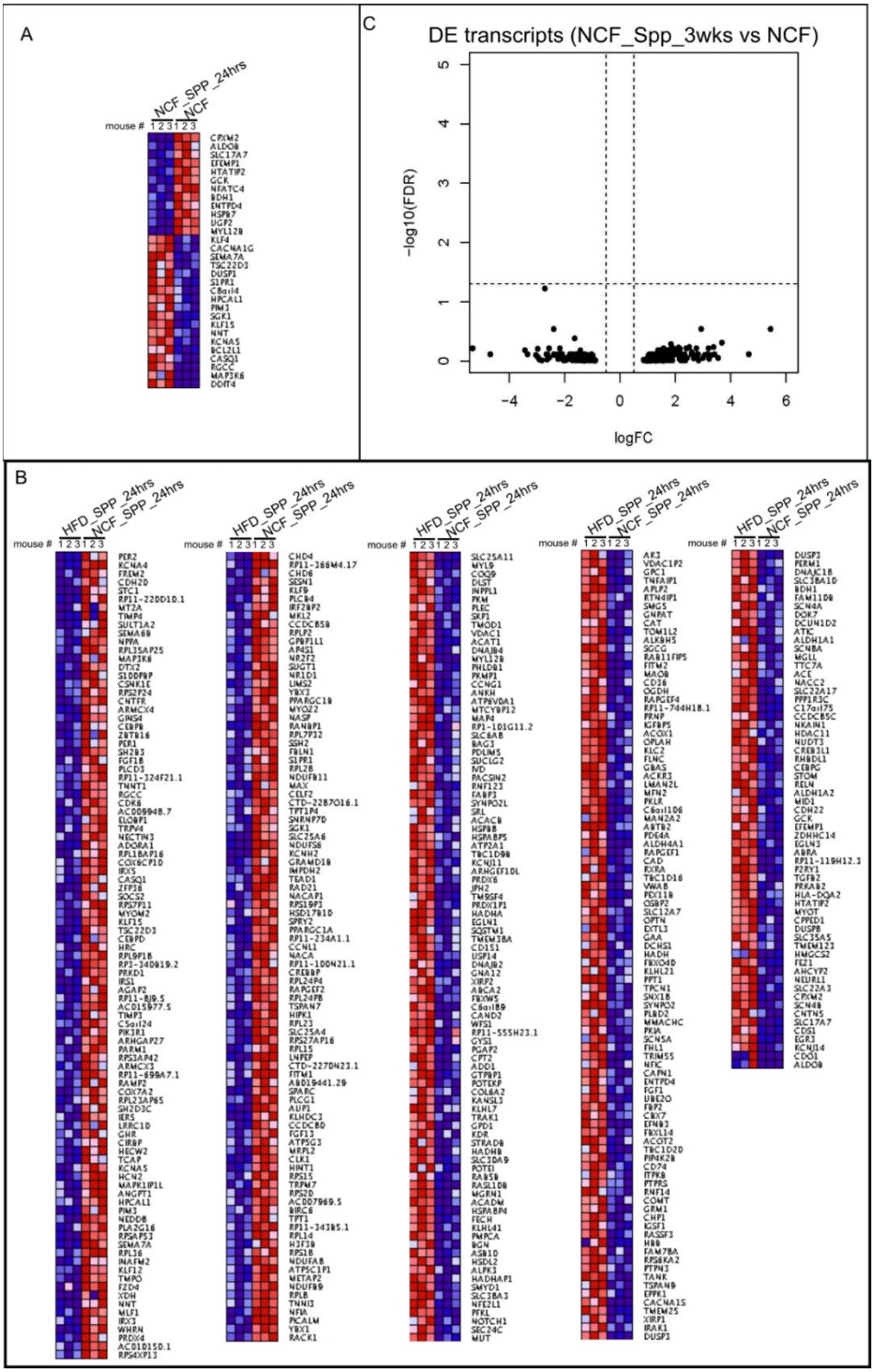
Supplementary Fig 1 LDL-c significantly increases cellular uptake of Spp virus in HDMVEC (A) at 0.5 and 2 hpi and in MØ (B) at 2 and 6 hpi, which can be blocked with BLT-1, an inhibitor of SR-B1.



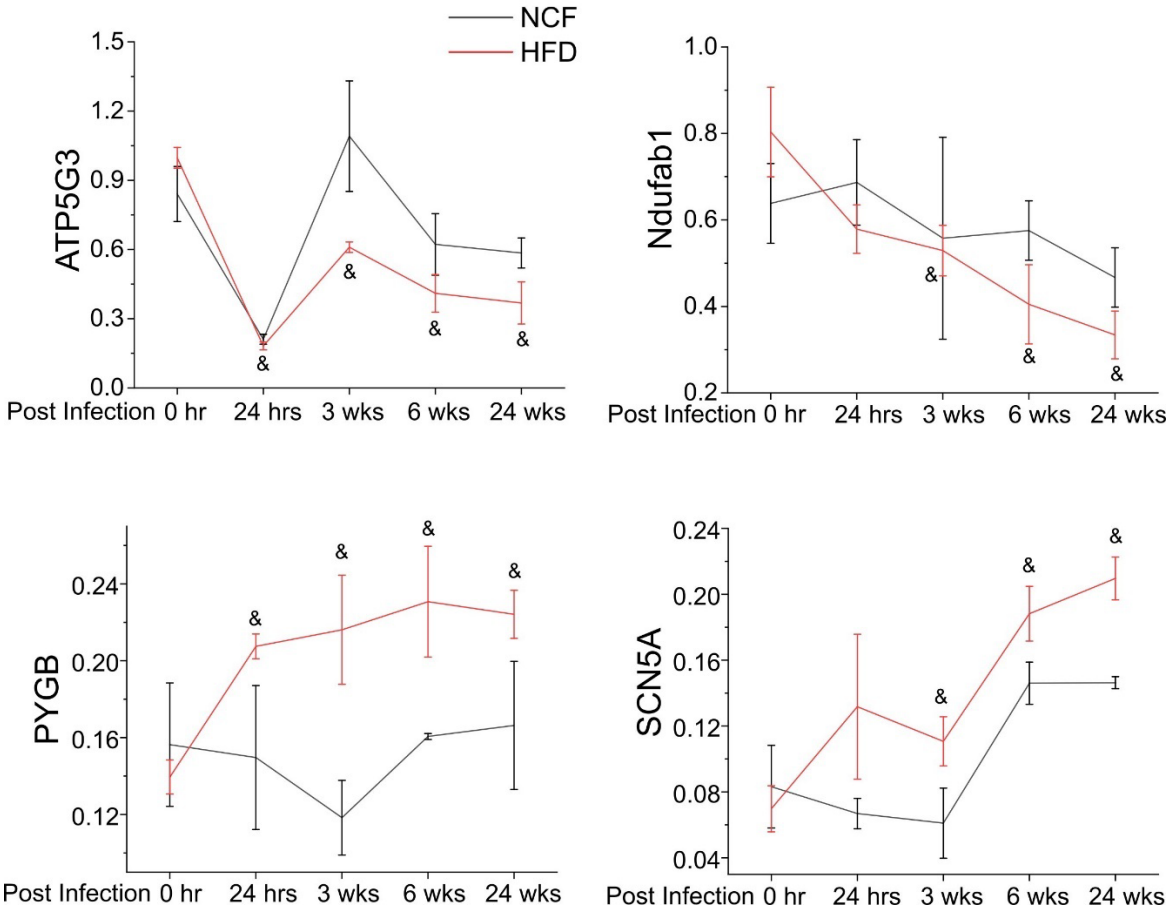
Supplementary Fig 2 (A) The relative protein levels of SR-B1 in kidney, liver, spleen, and lungs in HFD mice and the NCF group by Western blot. Blots from two animals per group were shown. SR-B1 shows two bands in the blots, 75Kd (**) and 84Kd (*), probably due to the distinct post-translational modifications. (B) Relative protein levels of SR-B1 with the 84Kd MW band in hearts and adipose tissues. (C) Relative protein levels of SR-B1 in kidney, liver, spleen, and lungs. (D) Relative ratios of SR-B1 75Kd / 84 Kd MW bands among various tissues. # indicates $p < 0.01$ in HFD vs NCF group for SR-B1. The data from aorta is absent due to the very limited tissue collected.



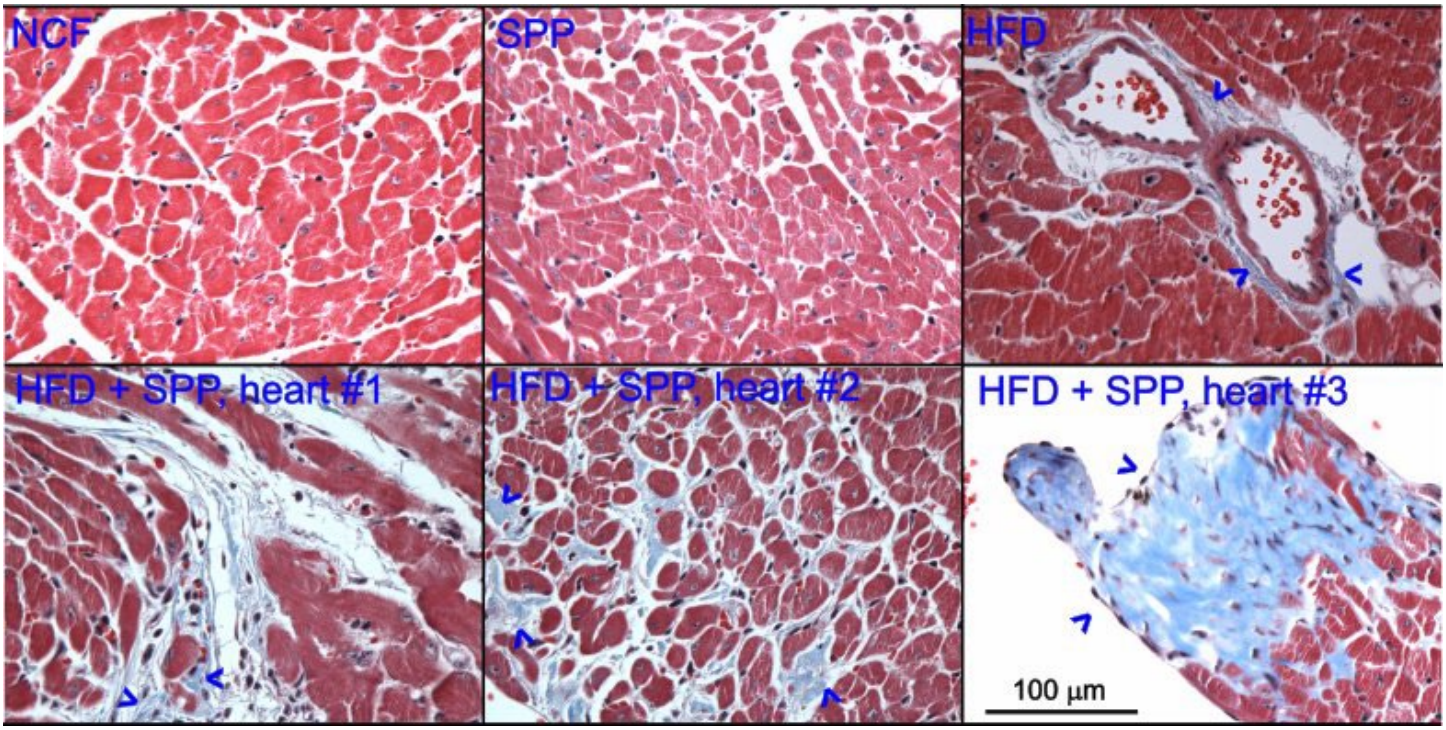
Supplementary Fig 3 Acute changes in cardiac transcriptomes in normal and obese mice 24 hpi. (A) Volcano plot showing the cardiac DEs in NCF mice 24 hpi as compared with control NCF mice without viral administration. (B) Volcano plot showing the cardiac DEs of 24 hpi in HFD mice as compared with NCF mice. (C) Volcano plot showing the cardiac DEs in HFD mice 24 hpi as compared with HFD control mice. (D) Ranked heatmap showing the individual downregulated (left panel) and upregulated DEs (right panel), which is ranked by FDR in HFD mice 24 hpi as compared with HFD control mice. FDR < 0.05 (horizontal dashed line) is used for cut-off threshold. Right vertical dashed line: fold changes (FC) > 0.5 (increase); left vertical dashed line: FC < - 0.5 (decrease). Blue dots represent downregulated DEs and red dots represent upregulated DEs.



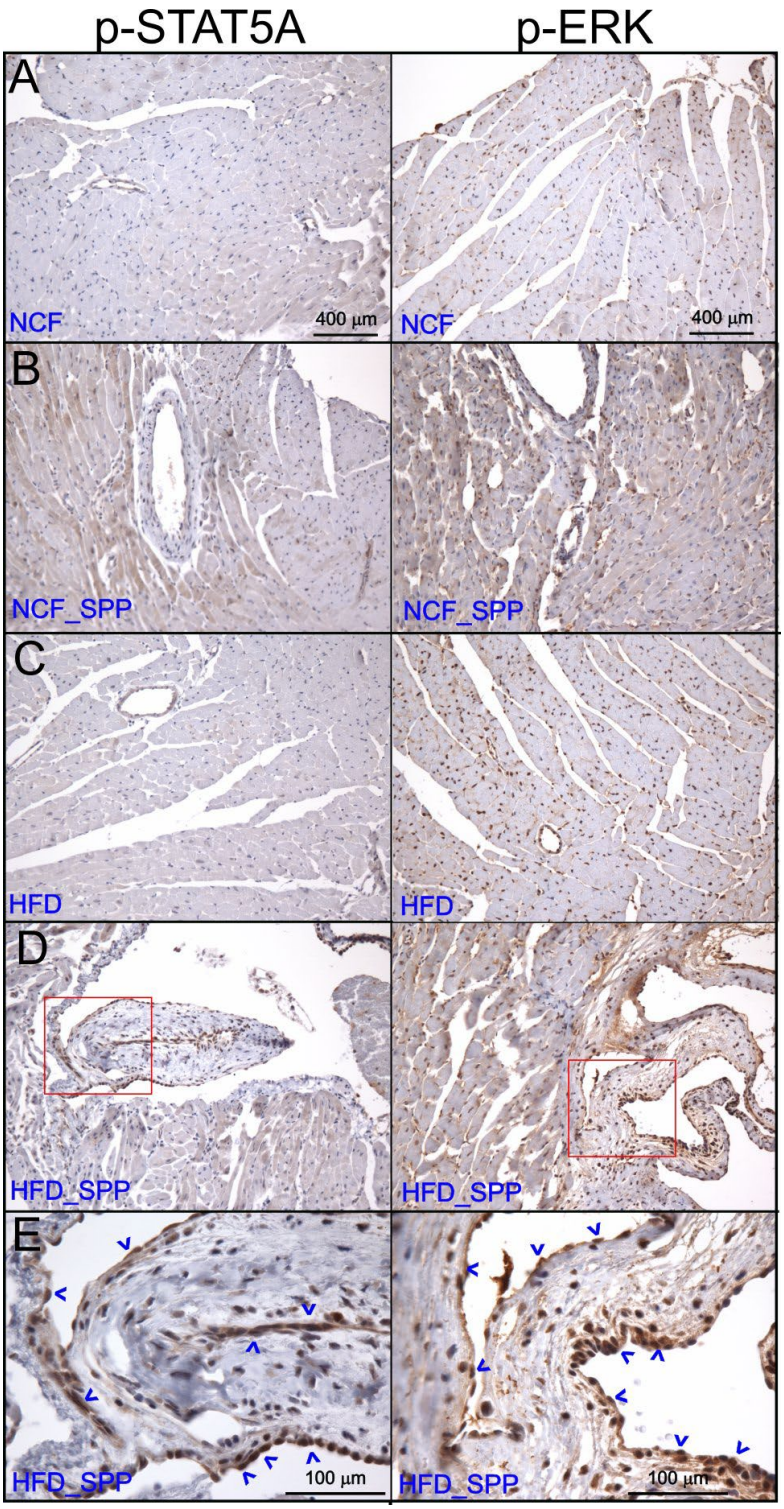
Supplementary Fig 4 (A) Ranked heatmap showing the individual dysregulated DEs, which is ranked by FDR in NCF mice 24 hpi as compared with NCF control mice. (B) Ranked heatmap showing the individual dysregulated DEs, which is ranked by FDR in HFD mice 24 hpi as compared with NCF mice 24 hpi. (C) Volcano plot showing that there is no significant cardiac DEs in NCF mice 3 wpi as compared with control NCF mice without viral administration.



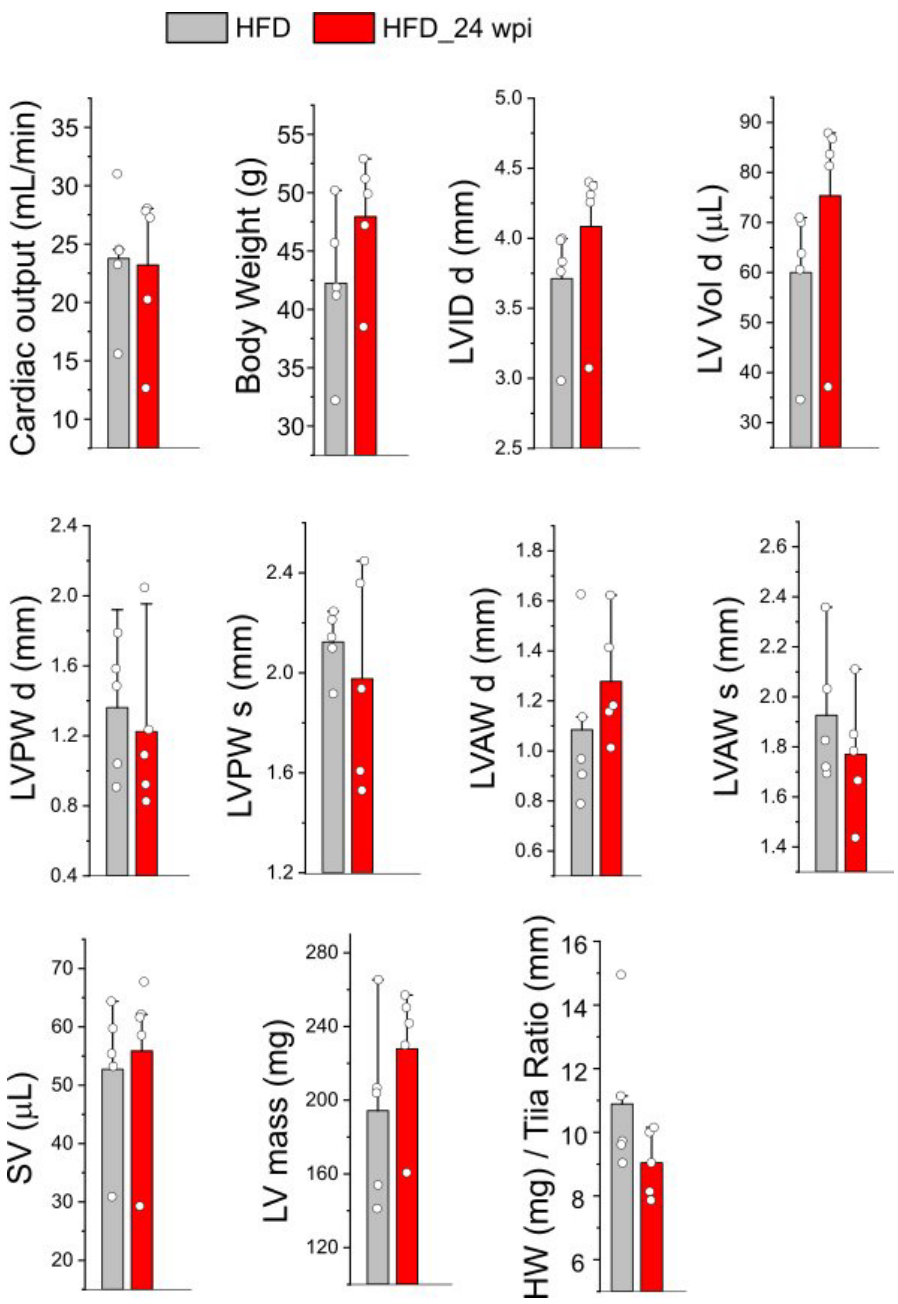
Supplementary Fig 5 Relative changes of some representative cardiac transcripts of DEs in HDF mice during the time course of post viral administration**.** & indicates $p < 0.05$ at each post-administration time point as compared to before administration (0 hr) in HFD mice.



Supplementary Fig 6 Heart cross section showing the cardiac fibrosis using Masson's trichrome staining. Focal fibrosis was evident in all three examined hearts in the HFD+SPP group but not in the control groups (6 wpi).



Supplementary Fig 7 IHC staining on heart sections (6 wpi) using p-STAT5A and p-ERK antibodies. The boxed areas in (D) were shown in a higher magnification in (E). The arrow heads indicate the positive cells in the focal fibrotic regions.



Supplementary Fig 8 Echocardiogram showing the cardiac functions in the HFD mice 24 wpi as compared with the age-matched HFD controls (13 months old). There were no significant in cardiac output (mL/min), body weight (g) left ventricular end-diastolic diameter (LVID d), left ventricular end-diastolic volume (LV Vol d), left ventricular end-diastolic posterior wall thickness (LVPW d), left ventricular end-systolic posterior wall thickness (LVPW s), left ventricular end-diastolic anterior wall thickness (LVAW d), left ventricular end-systolic anterior wall thickness (LVAW s), and stroke volume (SV), LV mass, and heart weight-to-tibia length.

Supplementary table 1 Source of antibodies in this study

Antibodies	Catalog	Vendor	Dilutions for WB or IHC
Spike S1 subunit	GTX635671	Genetex	1:100 (IHC)
MRC1	A02285-2	Boster Bio	1:200 (IHC)
SR-B1	NB400-104	Novus Biologicals	1:2000
CD31	ZRB1216	Sigma	1:200 (IHC)
STAT5	A21228	Abclonal	1:1000
GAPDH	G8795	Sigma	1:2000
Beta-actin	A1978	Sigma	1:2000
Beta-tubulin	MA1-118	Thermofisher	1:2000
PYGB	A13539	Abclonal	1:1000
OGDH	A6391	Abclonal	1:1000
NDUFS3	A8013	Abclonal	1:1000
NDUFA2	A8136	Abclonal	1:1000
ATP5C1	A15257	Abclonal	1:1000
p-STAT5A	AP0758	Abclonal	1:200 (IHC)
p-ERK	sc-7383	Santa Cruz Biotech	1:200 (IHC)

Supplementary table 2 List of primers

species	ENSEMBL	SYMBOL	ENTREZID	5 primers	3 primers	size
mouse	ENSMUSG00000038717	Atp5l	27425	TAGCCAACAATGCCACGTTT	TTACAGTTAAGGAAGCTGTG	100
mouse	ENSMUSG00000018770	Atp5g3	228033	CTCTCCAGTCCTAGTCTCTG	GGAGAGAGGAAGCGGGAGA	188
mouse	ENSMUSG00000014294	Ndufa2	17991	TTCAGGCTTTGCCGCTTAGC	TGCTTTTGGCCAAGAGAAGA	93
mouse	ENSMUSG00000030869	Ndufab1	70316	CAAGACATACAGAACTCGGT	GCTCGCGCAGGTGCCTGGA	103
mouse	ENSMUSG00000038615	Nfe2l1	18023	AAGCTCTCCCCAGTCTCTCC	CATCGCCAGAAGGAGCAGG	131
mouse	ENSMUSG00000032511	Scn5a	20271	ACTTTCACCTTGGTCCAGTAC	CCGAAGGGGACCTGCCTCT	100
mouse	ENSMUSG00000033059	Pygb	110078	AAGGAGAGTGCGTTGTCATAG	GAGGGGTTCTCCTGCCCA	102
mouse	ENSMUSG00000020893	Per1	18626	ATTAGTCAGCCCTCAGAGACA	CGAAACAGGGAAGGTGAAGA	98
mouse	ENSMUSG00000020456	Ogdh	18293	GACATTTTCACAAAACAAACCAGC	TGGGATTCTCCAACCAGGC	146

Supplementary table 3 Cardiac DEs for NCF_Spp_24hrs vs NCF_CTL

Ensembl ID	Gene symbol	NCF_Spp_24hrs-1	NCF_Spp_24hrs-2	NCF_Spp_24hrs-3	NCF-CTL-1	NCF-CTL-2	NCF-CTL-3	logFC	logCPM	PValue	FDR
ENSG00000121898	CPXM2	8.421097163	4.817468434	5.424727771	61.68102601	53.21796724	49.97904554	-3.13309	4.983498	4.00E-29	4.55E-25
ENSG00000168209	DDIT4	29.00600134	17.34288636	30.57573835	3.304340679	3.130468661	3.010785876	2.992887	3.944127	4.77E-15	2.72E-11
ENSG00000102760	RGCC	37.4270985	27.45957007	27.61679593	8.44442618	8.34791643	6.623728927	1.958697	4.347837	1.60E-11	6.09E-08
ENSG00000136872	ALDOB	4.678387313	0.481746843	2.958942421	26.43472543	30.26119706	12.64530068	-3.07241	3.814489	5.89E-11	1.68E-07
ENSG00000106633	GCK	20.11706544	9.634936868	15.78102624	60.94672808	52.17447769	39.14021639	-1.74582	5.093367	5.53E-10	1.26E-06
ENSG00000104888	SLC17A7	3.74270985	6.744455808	8.876827262	25.33327854	43.30481648	21.67765831	-2.21594	4.259694	2.05E-09	3.89E-06
ENSG00000130037	KCNA5	27.60248514	34.68577273	28.109953	9.913022037	12.00012987	7.225886103	1.613798	4.388355	6.01E-09	9.79E-06
ENSG00000115380	EFEMP1	6.081903506	3.372227904	4.931570701	19.82604407	16.69583286	16.86040091	-1.88824	3.622241	1.37E-08	1.96E-05
ENSG00000161267	BDH1	72.98284208	53.95564646	32.05520956	167.7870767	121.0447882	152.9479225	-1.47294	6.660341	2.47E-08	3.12E-05
ENSG00000118515	SGK1	112.2812955	83.82395075	77.42566001	34.14485368	42.7830717	40.94668791	1.221889	6.049223	4.43E-08	5.05E-05
ENSG00000109854	HTATIP2	4.210548581	7.707949495	8.383670192	24.59898061	28.17421795	17.46255808	-1.7966	4.01015	5.34E-08	5.53E-05
ENSG00000163884	KLF15	54.73713156	47.6929375	60.16516255	18.35744822	24.52200451	27.69923006	1.22443	5.312901	2.12E-07	0.000201
ENSG00000143318	CASQ1	29.00600134	24.56908901	14.7947121	9.545873073	4.695702992	4.817257402	1.77733	3.972161	7.83E-07	0.000644
ENSG00000112992	NNT	404.6805025	396.4776521	625.3231649	256.6371261	209.2196555	142.7112505	1.225113	8.410991	7.92E-07	0.000644
ENSG00000138623	SEMA7A	65.49742238	68.88979861	54.74043478	32.67625783	26.08723884	33.72080181	1.0298	5.583611	2.12E-06	0.001608
ENSG00000173641	HSPB7	431.8151489	346.8577273	398.4709126	678.4912861	742.9645622	624.4369907	-0.79747	9.07175	4.44E-06	0.003159
ENSG00000170989	S1PR1	62.22255126	47.6929375	61.64463376	34.14485368	20.3480463	25.29060136	1.083737	5.426704	6.44E-06	0.004316
ENSG00000176907	C8orf4	43.50900201	36.6127601	34.52099491	23.13038475	13.04361942	13.24745785	1.173706	4.833394	8.86E-06	0.00561
ENSG00000171552	BCL2L1	14.9708394	13.97065846	30.08258128	6.975830323	4.173958215	6.021571752	1.748689	3.773847	9.69E-06	0.005811
ENSG00000157514	TSC22D3	258.2469797	137.2978504	182.4681159	86.64715559	88.17486729	107.1839772	1.038157	7.173171	1.28E-05	0.007267
ENSG00000142733	MAP3K6	14.50300067	8.189696338	29.09626714	4.772936537	3.652213438	3.612943051	2.065179	3.537283	1.45E-05	0.007881
ENSG00000198355	PIM3	56.60848648	36.6127601	62.6309479	27.90332129	25.04374929	13.84961503	1.197181	5.257605	2.31E-05	0.01198
ENSG00000120129	DUSP1	94.03558498	58.29136805	95.17931453	40.38638608	49.04400902	28.30138724	1.064609	5.953111	3.14E-05	0.015572
ENSG00000169764	UGP2	391.5810181	336.2592967	343.2373208	621.9503456	518.6143082	585.8989315	-0.689	8.868002	5.63E-05	0.025688
ENSG00000006283	CACNA1G	38.36277596	46.72944381	51.28833529	22.02893786	27.1307284	22.27981548	0.933805	5.153478	5.64E-05	0.025688
ENSG00000118680	MYL12B	282.1067549	290.0115997	290.4695143	489.7767184	426.7872275	435.3596377	-0.6491	8.531725	8.53E-05	0.036289
ENSG00000100968	NFATC4	3.274871119	4.335721591	2.958942421	8.811575144	11.47838509	10.83882915	-1.52216	2.969313	8.60E-05	0.036289
ENSG00000197217	ENTPD4	32.28087246	22.64210164	36.00046612	70.85975012	57.39192545	46.96825967	-0.95579	5.508345	0.000101	0.040953
ENSG00000136826	KLF4	46.78387313	53.47389962	60.16516255	26.06757647	34.43515527	28.30138724	0.858013	5.408414	0.000117	0.045944
ENSG00000115756	HPCAL1	18.71354925	20.23336742	27.61679593	13.21736272	8.34791643	6.623728927	1.182163	4.077938	0.000121	0.04603

Supplementary table 4 Cardiac DEs for HFD_Spp_24hr vs NCF_Spp_24hrs

Ensembl ID	Gene symbol	HFD_Spp_24hr_1	HFD_Spp_24hr_2	HFD_Spp_24hr_3	NCF_Spp_24hr-1	NCF_Spp_24hr-2	NCF_Spp_24hr-3	logFC	logCPM	PValue	FDR
ENSG00000104888	SLC17A7	47.55113902	43.83370118	54.43800474	3.881250009	6.968587561	9.182534619	2.858438	4.82051	1.84E-27	2.08E-23
ENSG00000121898	CPXM2	39.62594918	33.0175931	37.64330115	8.73281252	4.977562544	5.611548934	2.499835	4.48443	5.47E-21	3.10E-17
ENSG00000177098	SCN4B	21.44463132	16.50879655	20.84859756	2.910937507	1.493268763	5.101408121	2.61654	3.61399	2.22E-13	8.39E-10
ENSG00000174429	ABRA	48.01732665	39.84881926	41.69719512	13.09921878	12.44390636	16.8346468	1.615299	4.88266	4.17E-13	1.18E-09
ENSG00000129521	EGLN3	73.65764671	80.83617621	90.34392276	27.16875006	36.83396282	15.81436518	1.610538	5.77383	3.21E-12	7.27E-09
ENSG00000175206	NPPA	38.69357391	8.539032698	19.11121443	116.4375003	105.0265697	91.82534619	-2.215897	6.02138	8.45E-12	1.60E-08
ENSG00000036448	MYOM2	125.8706621	105.3147366	94.39781673	216.379688	240.9140271	339.7537809	-1.287827	7.55866	1.90E-11	3.08E-08
ENSG00000108947	EFNB3	144.5181676	117.2693824	134.3576287	63.55546889	63.21504431	67.84872802	1.027214	6.63369	5.21E-11	7.37E-08
ENSG00000106633	GCK	51.28064012	40.4180881	50.38411077	20.8617188	9.955125088	16.32450599	1.588108	5.01629	6.25E-11	7.87E-08
ENSG00000163884	KLF15	27.03888297	18.78587194	23.1651084	56.76328138	49.27786918	62.23717908	-1.273287	5.3528	3.97E-10	4.50E-07
ENSG00000109854	HTATIP2	20.04606841	26.75563579	29.53551321	4.36640626	7.96410007	8.672393807	1.847612	4.08043	7.76E-10	7.99E-07
ENSG00000119938	PPP1R3C	32.63313462	41.5566258	36.48504573	13.09921878	12.94166261	16.32450599	1.377596	4.71394	1.20E-09	1.13E-06
ENSG00000225024	AC015977.5	34.49788517	20.49367848	33.58940718	64.04062514	65.20606932	70.90957289	-1.166067	5.62772	5.77E-09	5.03E-06
ENSG00000236929	RP11-699A7.1	89.97421402	55.21907811	75.2866023	161.0718754	162.2685389	136.7177377	-1.054912	6.84383	6.50E-09	5.26E-06
ENSG00000157514	TSC22D3	74.12383435	78.55910082	96.13519986	267.8062506	141.8605325	188.7521005	-1.267842	7.15575	7.47E-09	5.64E-06
ENSG00000161267	BDH1	131.9311014	128.6547593	144.2027998	75.68437517	55.74870049	33.15915279	1.29478	6.57891	1.06E-08	7.53E-06
ENSG00000196821	C6orf106	110.9526577	104.1761989	115.825542	58.21875013	60.72626303	62.23717908	0.868895	6.42885	1.31E-08	8.59E-06
ENSG00000145675	PIK3R1	86.24471292	78.55910082	99.03083841	225.1125005	138.3762387	199.9751984	-1.094936	7.1213	1.36E-08	8.59E-06
ENSG00000102760	RGCC	14.9180044	6.831226158	9.84517107	38.81250009	28.3721065	28.56788548	-1.568674	4.49646	1.63E-08	9.72E-06
ENSG00000082641	NFE2L1	789.7218578	794.6993098	682.2124424	472.5421886	410.1511536	475.9613777	0.738593	9.2409	1.87E-08	1.06E-05
ENSG00000116688	MFN2	482.9703924	649.5357539	589.5520088	297.4007819	286.2098463	359.6492726	0.867669	8.7969	2.97E-08	1.60E-05
ENSG00000169860	P2RY1	17.71513022	18.21660309	16.21557588	5.336718762	4.479806289	6.631830558	1.657336	3.62302	3.18E-08	1.64E-05
ENSG00000007314	SCN4A	46.1525761	72.29714351	72.97009146	28.62421881	18.41698141	30.09830792	1.302704	5.5011	3.95E-08	1.88E-05
ENSG00000136872	ALDOB	17.24894258	22.20148501	308.6750694	4.851562511	0.497756254	3.060844873	5.336169	5.87172	4.07E-08	1.88E-05
ENSG00000144476	ACKR3	120.7425981	117.2693824	109.4551372	57.24843763	70.68138812	64.27774233	0.85542	6.50435	4.15E-08	1.88E-05
ENSG00000172403	SYNPO2	76.45477254	79.69763851	77.60311314	45.11953135	42.30928162	32.13887117	0.963494	5.8995	4.54E-08	1.98E-05
ENSG00000084234	APLP2	421.4336242	459.3999592	444.7700813	245.4890631	237.4297333	302.0033608	0.75584	8.46134	6.71E-08	2.82E-05
ENSG00000128591	FLNC	629.3533105	773.6363624	841.4725626	479.3343761	407.1646161	355.5681461	0.852666	9.18403	1.07E-07	4.23E-05
ENSG00000172399	MYOZ2	619.0971825	553.8985877	542.0635366	870.8554707	890.9836953	1092.72162	-0.734285	9.57537	1.08E-07	4.23E-05
ENSG00000169047	IRS1	20.51225605	20.49367848	23.74423611	38.32734384	58.73523802	49.99379959	-1.183188	5.19018	1.13E-07	4.26E-05
ENSG00000115593	SMYD1	358.0321055	370.5940191	320.8367513	199.8843755	194.1249392	235.6850552	0.737418	8.13272	1.28E-07	4.66E-05
ENSG00000119138	KLF9	119.3440352	114.992307	122.1959468	230.4492193	173.2191765	223.9518165	-0.815543	7.36899	1.57E-07	5.57E-05
ENSG00000184545	DUSP8	14.9180044	12.52391462	17.95295901	4.36640626	5.475318798	1.530422436	1.9701	3.37035	1.72E-07	5.89E-05
ENSG00000148175	STOM	25.17413242	19.92440963	25.48161924	10.18828127	4.977562544	9.692675431	1.500833	4.07012	2.30E-07	7.68E-05
ENSG00000219023	RP3-340B19.2	14.45181676	10.81610808	12.74080962	31.05000007	29.36761901	27.54760386	-1.196647	4.47463	2.62E-07	8.49E-05
ENSG00000175931	UBE2O	45.22020083	54.64980927	45.17196138	24.25781255	21.90127519	25.50704061	1.012872	5.20602	3.04E-07	9.56E-05
ENSG00000081248	CACNA1S	36.36263572	27.89417348	43.43457825	16.01015629	14.93268763	15.30422436	1.215458	4.72755	3.59E-07	0.00011
ENSG00000214263	RPSAP53	33.09932226	29.03271117	31.27289634	63.55546889	55.74870049	57.13577096	-0.913084	5.53073	3.99E-07	0.00012
ENSG00000179094	PER1	32.63313462	15.37025886	33.58940718	144.5765628	53.75767547	73.46027695	-1.730613	5.91743	4.00E-07	0.00012
ENSG00000153179	RASSF3	39.15976154	50.0956585	41.69719512	15.03984378	20.40800643	24.48675898	1.124532	5.02507	4.27E-07	0.00012
ENSG00000178053	MLF1	58.73964232	68.31226158	50.38411077	119.833594	111.497401	94.37605025	-0.87601	6.4118	4.39E-07	0.00012
ENSG00000147255	IGSF1	49.41588957	62.61957312	39.95981199	26.68359381	19.91025018	22.95633655	1.124522	5.23808	4.55E-07	0.00012
ENSG00000105953	OGDH	1177.589972	1755.055854	1504.573791	847.0828144	799.3965445	911.6216313	0.794175	10.1878	4.90E-07	0.00013
ENSG00000138796	HADH	169.6923	152.5640509	144.2027998	62.10000014	77.15221943	104.5788665	0.938145	6.89734	5.10E-07	0.00013
ENSG00000169116	PARM1	24.70794478	21.06294732	19.11121443	38.32734384	52.26440671	46.93295472	-1.071636	5.12896	5.28E-07	0.00013
ENSG00000120729	MYOT	10.72231566	12.52391462	16.21557588	4.36640626	2.986537526	3.060844873	1.885952	3.19379	5.90E-07	0.00014
ENSG00000138623	SEMA7A	37.29501099	31.30978656	35.32679031	67.92187515	71.17914438	56.62563015	-0.908777	5.67856	5.91E-07	0.00014
ENSG00000022267	FHL1	95.56846567	122.392802	111.1925203	69.37734391	39.82050035	56.11548934	0.989528	6.37644	5.99E-07	0.00014
ENSG00000129559	NEDD8	48.94970193	33.0175931	36.48504573	81.50625018	73.66792565	70.90957289	-0.920875	5.8773	6.85E-07	0.00016
ENSG00000187446	CHP1	33.56550989	40.98735695	36.48504573	14.55468753	15.92820014	20.9157733	1.106928	4.79971	8.12E-07	0.00018
ENSG00000159423	ALDH4A1	60.60439286	69.45079928	54.43800474	32.50546882	34.34518155	32.13887117	0.896671	5.58738	8.40E-07	0.00019
ENSG00000218682	AC010150.1	125.4044745	77.42056313	99.60996612	193.0921879	174.7124453	184.1608332	-0.862409	7.16812	8.53E-07	0.00019
ENSG00000181904	C5orf24	20.51225605	18.21660309	11.5825542	38.32734384	41.31376911	33.15915279	-1.147284	4.8319	8.87E-07	0.00019
ENSG00000157150	TIMP4	5.128064012	9.108301545	12.16168191	64.5257814	12.44390636	66.31830558	-2.445256	4.88701	9.32E-07	0.0002
ENSG00000100234	TIMP3	55.01014122	42.12589464	60.80840955	156.7054691	79.6410007	114.7816827	-1.151425	6.43	9.80E-07	0.0002
ENSG00000109906	ZBTB16	32.16694698	47.24931426	53.27974932	184.8445317	57.73972551	197.4244943	-1.731563	6.597	1.03E-06	0.00021
ENSG00000149596	JPH2	379.4767369	336.4378883	358.4800525	230.9343755	238.4252458	232.1140695	0.615683	8.21366	1.11E-06	0.00022
ENSG00000146729	GBAS	348.2421652	354.6544914	301.7255369	144.5765628	179.6900078	232.1140695	0.853311	8.02758	1.11E-06	0.00022
ENSG00000145494	NDUFS6	120.2764105	108.7303497	113.5090312	182.9039067	184.6675704	176.508721	-0.665784	7.21946	1.18E-06	0.00023
ENSG00000080546	SESN1	68.5295827	57.4961535	59.65015413	103.8234377	97.56022586	129.5757663	-0.828637	6.44928	1.25E-06	0.00024
ENSG00000112992	NNT	276.449269	271.5412398	254.8161924	419.6601572	409.6533974	646.8585498	-0.878044	8.57406	1.38E-06	0.00026
ENSG00000151729	SLC25A4	9800.662702	8418.916971	8604.100387	13661.02972	12807.76618	13492.71434	-0.575047	13.4424	1.41E-06	0.00026
ENSG00000141959	PFKL	127.7354127	111.5766939	112.9299034	69.86250016	75.16119441	66.31830558	0.738763	6.56747	1.47E-06	0.00026
ENSG00000117054	ACADM	190.2045561	181.596762	169.1052913	101.8828127	103.0355447	125.4946398	0.712608	7.19061	1.69E-06	0.0003
ENSG00000130255	RPL36	135.1944149	79.69763851	137.832395	213.4687505	228.4701208	220.3808308	-0.90646	7.414	1.76E-06	0.00031
ENSG00000249617	RP11-366M4.1	123.5397239	78.55910082	88.02741192	170.2898441	172.223664	177.0188618	-0.833676	7.09132	1.79E-06	0.00031
ENSG00000102763	VWA8	97.89940386	85.39032698	76.44485772	38.81250009	41.81152537	58.15605258	0.908692	6.07303	1.97E-06	0.00033
ENSG00000240371	RPS4XP13	98.83177913	64.89664851	96.13519986	163.4976566	137.8784825	166.8160456	-0.84572	6.93875	2.14E-06	0.00036
ENSG00000120833	SOCS2	14.9180044	18.78587194	13.89906504	53.85234387	38.32723159	27.03746304	-1.325584	4.8623	2.18E-06	0.00036
ENSG00000121769	FABP3	1977.567958	1908.758442	1861.31646	1358.922659	1157.781048	1345.751462	0.573509	10.6461	2.44E-06	0.00039
ENSG00000172216	CEBPB	10.25612802	8.539032698	17.3738313	64.04062514	23.89230021	32.13887117	-1.734266	4.77378	2.65E-06	0.00042
ENSG00000146085	MUT	118.4116599	138.3323297	113.5090312	65.98125015	79.6410007	74.99069939	0.7462	6.63321	2.77E-06	0.00044
ENSG00000130528	HRC	36.82882336	17.0780654	19.11121443	62.10000014	67.6948506	44.89239147	-1.238113	5.418	2.93E-06	0.00045
ENSG00000136560	TANK	25.17413242	23.90929155	24.32336382	13.09921878	10.45288134	9.182534619	1.158818	4.217	2.96E-06	0.00045
ENSG00000198952	SMG5	82.98139946	91.08301545	81.0778794	55.30781263	47.28684417	47.44309553	0.763628	6.09516	3.35E-06	0.00051
ENSG00000150893	FREM2	0	2.277075386	0	9.703125022	7.96410007	4.591267309	-3.265898	2.38288	3.73E-06	0.00055
ENSG00000108861	DUSP3	19.57988077	24.4785604	19.69034214	8.73281252	9.955125088	7.652112182	1.263322	3.98841	3.76E-06	0.00055
ENSG00000169253	RP11-220D10.1	1.398562912	0.569268847	1.15825542	8.247656269	4.479806289	8.162252994	-2.638975	2.35893	3.82E-06	0.00056
ENSG00000171298	GAA	55.47632885	48.38785196	64.28317581	34.93125008	23.89230021	29.07802629	0.932178	5.4431	4.13E-06	0.00059

ENSG00000070159	PTPN3	49.8820772	64.32737966	44.59283367	31.53515632	14.43493138	24.9968998	1.157411	5.28836	4.47E-06	0.00063
ENSG00000198663	C6orf89	212.115375	177.6118801	189.3747612	124.6851565	121.9502823	124.984499	0.641664	7.31635	5.07E-06	0.00071
ENSG00000213856	VDAC1P2	108.6217195	118.9771889	105.4012432	61.61484389	58.23748176	78.05154426	0.75081	6.48031	5.58E-06	0.00077
ENSG00000188338	SLC38A3	90.44040166	96.20643506	97.29345528	63.07031264	48.78011293	58.15605258	0.737432	6.25672	5.86E-06	0.0008
ENSG00000185641	CTD-2287O16.	203.2578099	147.4406313	183.5834841	279.9351569	297.6582401	278.0267426	-0.676853	7.86408	5.94E-06	0.0008
ENSG00000055118	KCNH2	123.5397239	124.1006085	118.1420528	217.8351567	170.7303953	191.8129454	-0.665613	7.31242	6.28E-06	0.00084
ENSG00000182255	KCNA4	0	0.569268847	0.57912771	3.881250009	4.479806289	4.591267309	-3.381903	1.77654	7.00E-06	0.00092
ENSG00000113504	SLC12A7	62.00295578	93.92935968	75.2866023	46.57500011	43.30479413	31.62873035	0.920889	5.89396	7.90E-06	0.00103
ENSG00000011105	TSPAN9	27.50507061	47.81858311	45.17196138	15.03984378	21.90127519	16.32450599	1.165352	4.88655	8.59E-06	0.00108
ENSG00000109819	PPARGC1A	142.6534171	144.594287	133.778501	203.7656255	208.0621143	229.5633655	-0.606266	7.47804	8.59E-06	0.00108
ENSG00000149557	FEZ1	8.857565111	7.969763851	5.7912771	0.970312502	1.991025018	2.040563249	2.155564	2.48108	8.71E-06	0.00108
ENSG00000112695	COX7A2	17.24894258	15.37025886	20.84859756	32.99062507	44.79806289	32.64901198	-1.046639	4.83312	8.71E-06	0.00108
ENSG00000074416	MGLL	14.9180044	17.0780654	16.21557588	7.277343766	4.479806289	7.14197137	1.336838	3.59294	9.33E-06	0.00115
ENSG00000159592	GPBP1L1	55.94251649	48.9571208	41.69719512	93.15000021	85.61407575	73.97041776	-0.779244	6.08474	1.02E-05	0.00125
ENSG00000197217	ENTPD4	56.40870413	81.40544505	51.54236619	33.47578133	23.39454396	37.24027929	1.005588	5.5845	1.08E-05	0.0013
ENSG00000177600	RPLP2	559.8913525	335.8686195	517.161045	844.6570332	812.3382071	774.3937528	-0.782216	9.32675	1.09E-05	0.0013
ENSG00000014824	SLC30A9	103.0274679	116.1308447	96.13519986	58.70390638	67.19709434	67.84872802	0.702282	6.42063	1.13E-05	0.00133
ENSG00000182606	TRAK1	173.8879888	216.8914305	185.3208672	135.3585941	108.5108635	115.2918235	0.679472	7.29118	1.15E-05	0.00133
ENSG00000108107	RPL28	376.679611	269.8334333	391.490332	552.59297	536.083486	593.2937645	-0.695595	8.82856	1.15E-05	0.00133
ENSG00000187642	PERM1	20.51225605	26.18636694	22.00685298	5.336718762	9.955125088	12.7535203	1.288633	4.08203	1.36E-05	0.00155
ENSG00000183873	SCN5A	298.360088	539.6668665	601.7136907	281.3906256	217.0217269	232.6242103	0.976287	8.50012	1.39E-05	0.00156
ENSG00000138029	HADHB	2126.748002	2223.564115	1960.347298	1091.116409	1168.233929	1619.697079	0.702184	10.7305	1.39E-05	0.00156
ENSG00000126368	NR1D1	141.2548541	91.65228429	130.3037347	215.8945317	184.6675704	211.1982962	-0.748935	7.35619	1.48E-05	0.0016
ENSG00000142733	MAP3K6	4.661876374	4.554150772	3.47476626	15.03984378	8.461856324	30.09830792	-2.052927	3.61055	1.49E-05	0.0016
ENSG00000095370	SH2D3C	19.57988077	26.18636694	20.26946985	47.06015636	32.85191279	55.60534852	-1.039336	5.11942	1.49E-05	0.0016
ENSG00000161533	ACOX1	80.18427364	88.80594006	87.44828421	39.78281259	39.82050035	63.25746071	0.843746	6.07238	1.49E-05	0.0016
ENSG00000141298	SSH2	59.20582995	51.23419619	49.22585535	82.47656269	93.57817582	85.19351563	-0.704253	6.15812	1.49E-05	0.0016
ENSG00000136383	ALPK3	130.5325385	132.6396412	162.7348865	101.3976565	76.15670692	78.05154426	0.733577	6.83717	1.51E-05	0.0016
ENSG00000163092	XIRP2	490.8955822	432.0750545	513.6862788	332.332032	332.5011779	261.7022366	0.632532	8.62468	1.56E-05	0.00163
ENSG00000248610	HSPA8P4	77.38714781	95.06789737	85.13177337	55.30781263	51.76665046	49.48365878	0.71382	6.12522	1.67E-05	0.00173
ENSG00000150401	DCUN1D2	18.18131786	30.74051771	21.42772527	8.247656269	7.466343816	12.24337949	1.319552	4.09948	1.75E-05	0.0018
ENSG00000176842	IRX5	10.72231566	3.984881926	8.10778794	18.92109379	17.4214689	22.95633655	-1.341438	3.8984	1.87E-05	0.00191
ENSG00000242299	RP11-234A1.1	178.5498651	146.3020936	158.1018648	232.8750005	236.9319771	264.2529407	-0.601279	7.6732	1.99E-05	0.00201
ENSG00000169100	SLC25A6	74.59002199	70.58933697	72.97009146	131.477344	104.0310572	112.2309787	-0.671828	6.5783	2.05E-05	0.00205
ENSG00000105048	TNNT1	5.128064012	2.277075386	5.21214939	15.03984378	11.44839385	11.73323868	-1.569951	3.26993	2.18E-05	0.00217
ENSG00000204434	POTEKP	97.43321622	91.08301545	106.5594986	60.64453139	66.69933809	57.64591177	0.672319	6.33724	2.20E-05	0.00217
ENSG00000147573	TRIM55	24.70794478	28.46344233	30.69376863	13.09921878	13.93717512	14.79408355	0.993818	4.44414	2.29E-05	0.00223
ENSG00000066926	FECH	75.05620963	89.94447775	81.0778794	44.14921885	51.2688942	54.07492609	0.716613	6.05969	2.35E-05	0.00227
ENSG00000166016	ABTB2	45.68638847	46.11077657	46.3302168	17.95078129	27.87435025	29.07802629	0.883886	5.18354	2.36E-05	0.00227
ENSG00000115380	EFEMP1	10.72231566	20.49367848	14.47819275	6.307031264	3.484293781	5.101408121	1.589056	3.44545	2.38E-05	0.00227
ENSG00000095397	WHRN	21.91081896	20.49367848	23.1651084	42.20859385	34.84293781	43.36196903	-0.874972	5.00802	2.56E-05	0.00241
ENSG00000224631	RPS27AP16	301.6234014	245.3548729	265.2404912	414.8085947	421.1017912	373.9332153	-0.573323	8.40225	2.57E-05	0.00241
ENSG00000152822	GRM1	26.1065077	24.4785604	38.80155657	16.49531254	11.94615011	12.7535203	1.105768	4.49568	2.72E-05	0.00253
ENSG00000125691	RPL23	479.2408913	380.2715895	446.5074644	690.3773453	657.0382558	601.4560175	-0.57667	9.08692	2.75E-05	0.00253
ENSG00000178814	OPLAH	39.62594918	40.4180881	45.75108909	19.8914063	24.39005646	25.50704061	0.847027	5.0627	3.00E-05	0.00275
ENSG00000168264	IRF2BP2	31.23457171	26.75563579	36.48504573	52.88203137	50.77113795	60.19661583	-0.793641	5.46688	3.06E-05	0.00277
ENSG00000198355	PIM3	25.64032006	28.46344233	30.11464092	58.70390638	37.82947533	64.78788314	-0.93985	5.39565	3.18E-05	0.00285
ENSG00000105426	PTPRS	46.61876374	79.12836967	56.75451558	35.90156258	32.85191279	18.87521005	1.049867	5.51363	3.20E-05	0.00285
ENSG00000108666	C17orf75	13.98562912	13.66245232	11.00342649	3.881250009	5.475318798	5.101408121	1.416452	3.29304	3.29E-05	0.00291
ENSG00000187079	TEAD1	111.4188453	113.8537693	83.97351795	157.1906254	161.7707827	165.7957639	-0.645481	7.06181	3.34E-05	0.00293
ENSG00000128016	ZFP36	8.857565111	8.539032698	8.68691565	23.7726563	13.93717512	28.05774467	-1.325721	4.04261	3.36E-05	0.00293
ENSG00000117592	PRDX6	136.1267901	130.9318347	144.2027998	97.03125022	80.13875696	91.82534619	0.611589	6.83573	3.73E-05	0.00323
ENSG00000113140	SPARC	222.8376907	236.2465713	224.7015515	306.1335944	364.3575782	327.0002606	-0.544894	8.13647	3.81E-05	0.00327
ENSG00000168334	XIRP1	27.50507061	68.88153043	44.01370596	15.52500004	22.8967877	19.89549167	1.258282	5.0717	3.85E-05	0.00328
ENSG00000197296	FITM2	44.75401319	55.78834696	58.49189871	30.07968757	29.86537526	32.13887117	0.780543	5.4129	3.96E-05	0.00334
ENSG00000132326	PER2	0	0.569268847	0.57912771	7.762500018	2.488781272	4.081126497	-3.525093	1.87959	4.12E-05	0.00346
ENSG00000171867	PRNP	47.08495138	44.97223888	42.85545054	30.56484382	20.40800643	24.48675898	0.837134	5.16899	4.26E-05	0.00355
ENSG00000157637	SLC38A10	21.44463132	13.09318347	20.26946985	7.277343766	8.959612579	6.121689746	1.293397	3.78978	4.39E-05	0.00363
ENSG00000276293	PIP4K2B	22.3770066	23.90929155	31.27289634	10.67343752	12.44390636	14.28394274	1.042723	4.31936	4.65E-05	0.00382
ENSG00000091428	RAPGEF4	38.69357391	42.12589464	37.64330115	21.34687505	24.88781272	20.40563249	0.826993	4.98751	4.76E-05	0.00388
ENSG00000163833	FBXO40	70.86052089	126.3776839	92.6604336	35.41640633	57.73972551	56.11548934	0.954218	6.20426	4.93E-05	0.00397
ENSG00000165416	SUGT1	38.69357391	34.72539964	30.69376863	51.42656262	63.21504431	61.72703827	-0.751985	5.58424	4.96E-05	0.00397
ENSG00000132763	MMACHC	25.17413242	31.30978656	26.06074695	11.64375003	15.43044389	14.79408355	0.973443	4.43149	4.98E-05	0.00397
ENSG00000177707	NECTIN3	7.459002199	3.415613079	3.47476626	11.15859378	15.92820014	13.77380193	-1.452089	3.37906	5.19E-05	0.00412
ENSG00000119471	HSDL2	129.6001632	154.8411263	125.0915854	71.80312516	71.17914438	103.5585849	0.732146	6.78273	5.39E-05	0.00425
ENSG00000178035	IMPDH2	62.00295578	51.23419619	60.80840955	96.06093772	84.12080699	93.86590944	-0.651748	6.24628	5.55E-05	0.00434
ENSG00000159167	STC1	0.932375275	0.569268847	0.57912771	10.18828127	3.484293781	4.081126497	-2.958332	2.15178	5.59E-05	0.00434
ENSG00000069535	MAOB	52.21301539	58.06542235	74.70747459	33.47578133	34.34518155	39.28084254	0.782445	5.62655	5.75E-05	0.00443
ENSG00000270885	RASL10B	53.14539067	59.77322889	53.27974932	35.41640633	32.85191279	33.15915279	0.709155	5.50653	5.85E-05	0.00448
ENSG00000174996	KLC2	40.09213682	37.00247502	42.27632283	18.92109379	20.40800643	27.03746304	0.84788	4.99189	5.93E-05	0.00451
ENSG00000101333	PLCB4	35.89644808	44.97223888	40.5389397	65.98125015	57.73972551	87.74421969	-0.803069	5.82306	6.06E-05	0.00453
ENSG00000176485	PLA2G16	17.24894258	14.80099001	23.1651084	34.44609383	31.35864403	38.26056091	-0.916652	4.79135	6.09E-05	0.00453
ENSG00000176986	SEC24C	78.78571072	112.1459628	96.71432757	48.51562511	57.24196925	65.80816477	0.741975	6.27064	6.10E-05	0.00453
ENSG00000143318	CASQ1	13.05325385	8.539032698	5.7912771	30.07968757	25.38556897	15.30422436	-1.34104	4.1432	6.12E-05	0.00453
ENSG00000213326	RPS7P11	6.992814561	4.554150772	7.52866023	12.12890628	17.91922516	17.34478761	-1.295403	3.61132	6.23E-05	0.00457
ENSG00000111252	SH2B3	3.263313462	2.846344233	2.89563855	10.67343752	8.461856324	9.182534619	-1.625538	2.8781	6.26E-05	0.00457
ENSG00000146477	SLC22A3	5.128064012	5.123419619	6.94953252	0	1.991025018	1.020281624	2.442709	2.10507	6.32E-05	0.00457
ENSG00000163349	HIPK1	107.2231566	116.1308447	107.7177541	174.1710941	148.3313638	171.9174537	-0.579115	7.11653	6.33E-05	0.00457
ENSG00000182492	BGN	107.2231566	130.3625659	166.2096528	79.08046893	88.60061328	75.5008402	0.72727	6.76095	6.51E-05	0.00465
ENSG00000102858	MGRN1	100.6965297	106.4532743	102.5056047	52.39687512	57.24196925	79.5819667	0.711184	6.39131	6.54E-05	0.00465
ENSG00000130037	KCNA5	13.51944149	13.66245232	20.84859756	28.62421881	35.83845032	29.07802629	-0.970189	4.62752	6.57E-05	0.00465

ENSG00000072163	LIMS2	54.07776594	47.81858311	56.17538787	77.62500018	77.64997568	110.1904154	-0.745426	6.16547	6.86E-05	0.00483
ENSG00000251596	HADHAP1	137.9915407	127.5162216	116.9837974	65.98125015	64.70831307	99.47745837	0.735121	6.68632	7.04E-05	0.00493
ENSG00000107263	RAPGEF1	55.01014122	105.8840055	90.92305047	41.72343759	42.30928162	50.5039404	0.897899	6.0202	7.26E-05	0.00504
ENSG00000185551	NR2F2	30.30219643	35.86393733	40.5389397	66.4664064	59.23299427	53.05464446	-0.752424	5.60641	7.29E-05	0.00504
ENSG00000075239	ACAT1	551.4999751	523.15807	489.3629149	352.2234383	379.7880221	379.0346234	0.493928	8.80336	7.33E-05	0.00504
ENSG00000159640	ACE	13.98562912	26.75563579	26.63987466	10.67343752	9.955125088	5.101408121	1.364556	4.01979	7.54E-05	0.00514
ENSG00000123240	OPTN	23.77556951	27.89417348	30.11464092	13.09921878	15.92820014	13.77380193	0.923471	4.43231	7.90E-05	0.00536
ENSG00000175602	CCDC85B	34.03169753	29.03271117	28.9563855	64.04062514	45.29581915	50.5039404	-0.79072	5.43416	8.18E-05	0.00552
ENSG00000165688	PMPCA	66.19864451	60.91176658	54.43800474	33.47578133	34.84293781	42.34168741	0.718744	5.63326	8.66E-05	0.00578
ENSG00000135218	CD36	202.7916223	255.6017121	180.6878455	99.45703148	107.5153509	162.2247783	0.791846	7.39888	8.67E-05	0.00578
ENSG00000060138	YBX3	44.75401319	30.17124887	45.75108909	64.04062514	68.19260685	69.88929126	-0.738313	5.78226	8.77E-05	0.00581
ENSG00000161714	PLCD3	4.661876374	5.123419619	2.31651084	8.247656269	13.43941887	15.30422436	-1.578873	3.22005	8.92E-05	0.00587
ENSG00000130347	RTN4IP1	61.0705805	55.21907811	55.59626016	35.41640633	40.3182566	26.01718142	0.756158	5.54029	9.88E-05	0.00647
ENSG00000175048	ZDHHC14	10.72231566	9.108301545	7.52866023	3.881250009	2.488781272	2.550704061	1.605138	2.81551	0.0001	0.00654
ENSG00000116497	S100PBP	2.330938187	1.70780654	1.73738313	9.703125022	8.959612579	4.591267309	-1.960668	2.58044	0.0001	0.00658
ENSG00000138411	HECW2	13.98562912	11.38537693	12.74080962	28.13906256	19.91025018	27.54760386	-0.97768	4.33183	0.00011	0.00698
ENSG00000118680	MYL12B	449.8710701	375.1481699	445.349209	292.5492194	299.6492651	300.4729384	0.50955	8.49753	0.00011	0.00703
ENSG00000135439	AGAP2	9.789940386	8.539032698	10.42429878	24.25781255	14.43493138	26.52732223	-1.174772	4.07253	0.00011	0.00703
ENSG00000115307	AUP1	110.4864701	105.8840055	104.2429878	159.1312504	157.2909764	148.4509763	-0.534773	7.04582	0.00011	0.00717
ENSG00000147123	NDUFB11	108.6217195	75.71275659	127.4080962	170.7750004	162.7662952	170.8971721	-0.693491	7.10095	0.00012	0.00726
ENSG00000143772	ITPKB	31.70075934	61.48103543	52.1214939	29.59453132	23.39454396	16.8346468	1.044997	5.18842	0.00012	0.00726
ENSG00000120802	TMPO	18.18131786	14.80099001	14.47819275	33.96093758	26.38108148	28.56788548	-0.893447	4.58185	0.00012	0.00741
ENSG00000179388	EGR3	3.263313462	2.846344233	4.63302168	0.485156251	0.497756254	0	3.193327	1.54697	0.00012	0.00741
ENSG00000099622	CIRBP	34.96407281	22.20148501	35.32679031	49.48593761	48.78011293	85.70365644	-0.985366	5.56394	0.00012	0.00741
ENSG00000187486	KCNJ11	133.3296643	108.1610808	131.4619902	74.71406267	87.10734452	83.66309319	0.605037	6.70021	0.00012	0.00764
ENSG00000084774	CAD	27.97125825	25.61709809	35.90591802	16.01015629	14.43493138	17.34478761	0.898928	4.56856	0.00013	0.00789
ENSG00000256356	HSPA8P5	227.4995671	210.6294732	188.7956335	156.7054691	141.3627762	118.3526684	0.590759	7.44997	0.00013	0.008
ENSG00000125875	TBC1D20	22.3770066	41.5566258	27.79813008	15.52500004	14.93268763	13.77380193	1.038725	4.54815	0.00014	0.00829
ENSG00000135766	EGLN1	89.50802639	92.79082199	79.91962398	57.24843763	51.76665046	61.72703827	0.619832	6.19086	0.00014	0.00844
ENSG00000005339	CREBBP	76.92096017	93.36009083	99.60996612	134.3882816	129.4166261	141.309005	-0.590296	6.82784	0.00014	0.00844
ENSG00000063660	GPC1	329.128472	288.6193052	395.5442259	178.0523442	158.2864889	265.7833631	0.750969	8.07653	0.00015	0.00883
ENSG00000244019	RPS2P24	0.932375275	2.846344233	3.47476626	10.67343752	5.973075053	9.182534619	-1.86007	2.72127	0.00015	0.00895
ENSG00000128052	KDR	142.6534171	169.6421163	139.5697781	76.65468767	118.9637448	83.66309319	0.693332	6.93828	0.00015	0.00904
ENSG00000099822	HCN2	11.65469094	10.24683924	12.74080962	18.92109379	23.89230021	24.9968998	-0.963011	4.18664	0.00015	0.00904
ENSG00000239474	KLHL41	47.08495138	61.48103543	55.01713245	30.07968757	37.82947533	31.11858954	0.717752	5.47732	0.00016	0.00909
ENSG00000184304	PRKD1	5.594251649	8.539032698	5.7912771	16.49531254	13.43941887	15.30422436	-1.188145	3.58208	0.00016	0.0092
ENSG00000109501	WFS1	93.70371512	92.79082199	99.03083841	72.28828141	48.78011293	60.19661583	0.653558	6.29747	0.00016	0.00927
ENSG00000131791	PRKAB2	8.857565111	11.38537693	6.94953252	2.425781255	0.995512509	4.591267309	1.746204	2.7651	0.00017	0.00946
ENSG00000084754	HADHA	534.2510325	536.8205223	498.0498306	293.0343757	299.1515089	429.5385638	0.619346	8.75696	0.00017	0.00946
ENSG00000238008	COX6CP10	10.72231566	2.277075386	6.94953252	18.92109379	14.93268763	18.36506924	-1.342426	3.73114	0.00017	0.00956
ENSG00000019582	CD74	16.78275495	21.06294732	19.11121443	7.277343766	10.9506376	9.182534619	1.044481	3.89944	0.00017	0.00971
ENSG00000067225	PKM	1734.218011	1592.814233	1469.826128	1216.286722	1094.068247	1172.303586	0.462125	10.4314	0.00018	0.00982
ENSG00000182324	KCNJ14	2.330938187	3.984881926	5.21214939	0	0	1.020281624	3.27274	1.59124	0.00018	0.00983
ENSG00000173991	TCAP	275.9830814	191.2743324	236.8632334	709.2984391	355.8957219	320.8785708	-0.976383	8.4509	0.00018	0.00988
ENSG00000228224	NACAP1	48.94970193	44.97223888	51.54236619	83.44687519	73.17016939	68.86900964	-0.632349	5.97788	0.00018	0.0099
ENSG00000175662	TOM1L2	35.89644808	35.86393733	41.11806741	23.28750005	20.40800643	22.44619573	0.766206	4.9402	0.00018	0.00996
ENSG00000259330	INAFM2	25.17413242	29.03271117	35.32679031	75.68437517	44.30030664	46.93295472	-0.905232	5.45732	0.00018	0.00996
ENSG00000048740	CELF2	68.5295827	62.61957312	45.75108909	107.2195315	92.08490706	85.19351563	-0.679529	6.28947	0.00019	0.01055
ENSG00000197226	TBC1D9B	77.85333545	78.55910082	83.97351795	49.97109386	51.2688942	57.13577096	0.600969	6.07269	0.0002	0.01058
ENSG00000111642	CHD4	20.51225605	17.0780654	18.53208672	37.84218759	36.33620657	27.03746304	-0.844431	4.77834	0.0002	0.0106
ENSG00000152558	TMEM123	4.661876374	9.108301545	6.37040481	1.455468753	2.986537526	0	2.108712	2.32098	0.0002	0.01078
ENSG00000231006	RPL7P32	79.25189836	43.83370118	68.91619749	112.5562503	102.5377884	103.5585849	-0.724266	6.43391	0.0002	0.01078
ENSG00000111199	TRPV4	1.86475055	5.123419619	3.47476626	9.703125022	8.461856324	11.73323868	-1.535176	2.96292	0.0002	0.01085
ENSG00000242262	RP11-100N21.3	287.1715847	250.4782925	272.7691514	412.8679697	484.8145918	328.530683	-0.596913	8.4125	0.00021	0.01109
ENSG00000205476	CCDC85C	11.65469094	11.38537693	23.74423611	5.336718762	6.470831307	5.101408121	1.445507	3.51243	0.00021	0.0111
ENSG00000107331	ABCA2	67.59720743	75.14348774	75.2866023	49.97109386	40.3182566	49.99379959	0.632786	5.91985	0.00021	0.01115
ENSG00000243964	RPL23AP65	11.65469094	9.677570391	16.21557588	20.8617188	32.85191279	23.46647736	-1.040799	4.34053	0.00021	0.01122
ENSG00000065989	PDE4A	34.49788517	53.51127157	32.43115176	19.8914063	22.39903145	22.44619573	0.89009	4.98421	0.00022	0.01169
ENSG00000184792	OSBP2	27.97125825	27.89417348	33.01027947	12.61406253	13.43941887	20.9157733	0.918182	4.55333	0.00023	0.01189
ENSG00000013441	CLK1	111.885033	104.7454678	110.6133926	146.5171878	165.7528327	156.6132293	-0.51766	7.06477	0.00023	0.01198
ENSG00000147536	GINS4	2.330938187	1.138537693	1.73738313	7.277343766	5.475318798	6.121689746	-1.791274	2.3593	0.00024	0.01226
ENSG00000128918	ALDH1A2	6.992814561	16.50879655	15.05732046	3.396093758	4.479806289	5.101408121	1.53987	3.22504	0.00024	0.01237
ENSG00000014216	CAPN1	21.91081896	25.04782925	17.95295901	13.58437503	9.457368833	9.182534619	1.003948	4.09766	0.00024	0.01239
ENSG00000072954	TMEM38A	151.0447945	162.2416213	150.5732046	103.3382815	78.14773194	119.8830909	0.621947	7.004	0.00024	0.01239
ENSG00000071242	RPS6KA2	11.65469094	14.23172116	14.47819275	6.307031264	6.968587561	4.591267309	1.154253	3.40572	0.00025	0.01248
ENSG00000196531	NACA	241.4851962	179.3196867	244.3918936	354.6492196	367.3441157	286.6991364	-0.599773	8.13074	0.00025	0.0126
ENSG00000124177	CHD6	34.49788517	42.12589464	36.48504573	87.3281252	46.29133166	67.3385872	-0.831663	5.74289	0.00026	0.01274
ENSG00000151929	BAG3	256.8693882	212.3372798	257.1327032	155.7351566	155.7977076	187.2216781	0.543299	7.68002	0.00026	0.01287
ENSG00000101871	MID1	7.459002199	7.969763851	9.84517107	2.910937507	1.991025018	3.570985685	1.547718	2.70988	0.00026	0.01294
ENSG00000125952	MAX	62.00295578	58.06542235	63.12492039	117.892969	74.1656819	102.0281624	-0.682356	6.33585	0.00029	0.01407
ENSG00000163110	PDLIM5	450.8034454	473.6316803	445.349209	316.807032	258.335496	364.7506807	0.543394	8.59159	0.00029	0.01407
ENSG00000113578	FGF1	22.84319423	43.26443234	29.53551321	16.01015629	18.41698141	12.7535203	1.005988	4.61647	0.00029	0.01408
ENSG00000012232	EXTL3	26.1065077	47.81858311	45.17196138	18.43593754	23.39454396	20.40563249	0.923754	4.94787	0.0003	0.01437
ENSG00000047849	MAP4	162.6994855	182.7352997	178.9504624	129.0515628	105.5243259	127.535203	0.532537	7.21485	0.0003	0.01437
ENSG00000154188	ANGPT1	21.91081896	14.23172116	12.74080962	24.25781255	35.83845032	35.70985685	-0.947107	4.66503	0.0003	0.01437
ENSG00000189056	RELN	9.789940386	10.24683924	7.52866023	3.396093758	1.493268763	4.591267309	1.529809	2.8348	0.0003	0.01437
ENSG00000169567	HINT1	108.6217195	117.2693824	120.4585637	159.6164066	179.1922516	156.1030885	-0.516557	7.14319	0.0003	0.01437
ENSG00000250500	RP11-119H12.3	6.992814561	8.539032698	6.37040481	1.940625004	1.991025018	3.060844873	1.623229	2.52665	0.0003	0.0144
ENSG00000213585	VDAC1	325.3989709	351.2388783	309.2541971	217.8351567	230.4611458	257.1109693	0.483133	8.14331	0.00031	0.01489
ENSG00000226313	MTCYBP12	2130.943691	2273.659773	2533.683731	1317.684378	1764.048166	1721.2151	0.530581	10.9349	0.00032	0.01491
ENSG00000171033	PKIA	27.50507061	44.97223888	24.90249153	16.01015629	14.43493138	18.87521005	0.975192	4.65799	0.00032	0.01491

ENSG00000118922	KLF12	13.51944149	14.23172116	11.00342649	27.65390631	22.39903145	22.44619573	-0.897555	4.30143	0.00032	0.01491
ENSG00000101557	USP14	63.40151869	78.55910082	74.70747459	42.20859385	48.78011293	48.97351797	0.626091	5.91206	0.00032	0.01491
ENSG00000167680	SEMA6B	1.86475055	0	1.73738313	3.396093758	6.968587561	7.652112182	-2.217143	2.23463	0.00032	0.01495
ENSG00000157184	CPT2	61.0705805	59.20396004	56.17538787	33.96093758	33.34966904	44.38225066	0.662224	5.61243	0.00032	0.01495
ENSG00000154122	ANKH	146.3829182	136.0552543	133.778501	91.69453146	94.07593208	104.5788665	0.521268	6.89094	0.00032	0.01496
ENSG00000175920	DOK7	13.51944149	11.95464578	10.42429878	5.821875013	2.488781272	6.121689746	1.312505	3.22705	0.00033	0.01504
ENSG00000131477	RAMP2	15.85037967	11.38537693	19.69034214	38.32734384	20.40800643	38.77070172	-1.05242	4.65873	0.00033	0.01514
ENSG00000109079	TNFAIP1	29.8360088	35.29466849	31.85202405	18.92109379	19.91025018	18.36506924	0.755131	4.7313	0.00033	0.01518
ENSG00000164754	RAD21	38.69357391	45.54150772	33.58940718	63.07031264	61.72177554	59.17633421	-0.642404	5.68582	0.00033	0.01518
ENSG00000152137	HSPB8	340.3169753	285.2036921	280.8769393	191.1515629	169.2371265	242.8270266	0.588864	7.98043	0.00034	0.0152
ENSG00000198812	LRRC10	50.34826484	30.17124887	49.80498306	100.427344	48.78011293	113.2512603	-1.005908	6.06135	0.00035	0.0158
ENSG00000170989	S1PR1	32.63313462	34.15613079	42.85545054	64.5257814	49.27786918	63.76760152	-0.700397	5.61466	0.00035	0.01582
ENSG00000128928	IVD	158.9699844	153.1333197	148.2566938	101.8828127	87.60510077	121.9236541	0.565	7.01695	0.00035	0.01582
ENSG00000171823	FBXL14	15.85037967	14.80099001	18.53208672	8.73281252	6.470831307	8.672393807	1.033494	3.71011	0.00036	0.01597
ENSG00000167588	GPD1	53.14539067	55.78834696	69.4953252	32.99062507	33.8474253	43.36196903	0.691576	5.61119	0.00036	0.01597
ENSG00000019144	PHLDB1	132.8634767	133.7781789	126.2498408	96.54609397	85.61407575	92.84562781	0.514674	6.81014	0.00036	0.01597
ENSG00000236480	PKMP1	137.525353	137.7630609	130.8828625	90.72421896	88.60061328	104.0687257	0.520029	6.85566	0.00037	0.01607
ENSG00000084628	NKAIN1	10.25612802	11.95464578	8.10778794	4.851562511	1.493268763	4.591267309	1.456063	2.96809	0.00037	0.01609
ENSG00000134240	HMGCS2	13.05325385	10.24683924	69.4953252	5.336718762	5.973075053	9.692675431	2.129964	4.27197	0.00037	0.01615
ENSG00000157613	CREB3L1	7.459002199	8.539032698	9.26604336	2.910937507	2.488781272	3.570985685	1.466456	2.72857	0.00037	0.01623
ENSG00000124181	PLCG1	94.16990276	99.62204814	82.23613482	136.8140628	122.9457948	140.7988642	-0.535755	6.83242	0.00038	0.01644
ENSG00000113441	LNPEP	54.54395358	50.66492734	52.70062161	77.13984392	78.64548819	79.07182588	-0.57025	6.05846	0.00038	0.01645
ENSG00000167291	TBC1D16	20.97844368	29.60198002	32.43115176	14.55468753	12.44390636	16.8346468	0.907271	4.45298	0.00038	0.01645
ENSG00000156427	FGF18	2.797125825	6.261957312	2.89563855	12.12890628	16.42595639	7.14197137	-1.583668	3.18032	0.00039	0.01657
ENSG00000100266	PACSIN2	183.6779291	165.0879655	167.9470359	93.63515646	124.9368198	130.0859071	0.569279	7.18116	0.00039	0.01666
ENSG00000013561	RNF14	20.51225605	21.06294732	13.31993733	9.703125022	9.457368833	6.631830558	1.088722	3.85082	0.0004	0.01709
ENSG00000234152	ELOBP1	3.263313462	4.554150772	2.89563855	6.307031264	11.94615011	13.26366112	-1.540884	3.02379	0.00041	0.01748
ENSG00000102683	SGCG	74.12383435	75.71275659	67.75794207	43.17890635	27.37659399	56.62563015	0.775662	5.8658	0.00043	0.01787
ENSG00000109756	RAPGEF2	60.13820523	46.11077657	56.75451558	84.41718769	80.63651321	80.60224832	-0.586906	6.11567	0.00043	0.01787
ENSG00000236476	RP11-8J9.5	8.857565111	4.554150772	5.7912771	15.03984378	11.94615011	17.34478761	-1.168643	3.55762	0.00044	0.01819
ENSG00000161011	SQSTM1	239.154258	221.4455813	172.5800576	124.2000003	121.9502823	166.3059048	0.620362	7.4531	0.00044	0.01836
ENSG00000143627	PKLR	21.91081896	25.04782925	27.21900237	11.15859378	12.94166261	16.32450599	0.868827	4.31765	0.00044	0.01844
ENSG00000100478	AP4S1	28.43744588	18.21660309	28.37725779	46.57500011	43.80255039	37.24027929	-0.759173	5.12964	0.00045	0.01844
ENSG00000213923	CSNK1E	0.466187637	2.846344233	2.31651084	5.821875013	9.457368833	5.611548934	-1.921052	2.45531	0.00045	0.01866
ENSG00000161016	RPL8	463.8566992	393.364773	451.7196138	586.5539076	611.7424366	582.0706667	-0.44314	9.01154	0.00046	0.01898
ENSG00000203825	RP11-744H18.:	31.70075934	34.15613079	23.74423611	16.49531254	14.93268763	18.87521005	0.835478	4.60026	0.00046	0.01898
ENSG00000104852	SNRNP70	39.62594918	28.46344233	31.27289634	59.67421889	49.77562544	50.5039404	-0.676389	5.47542	0.00047	0.0191
ENSG00000068724	TTC7A	11.1885033	11.95464578	20.84859756	7.762500018	2.986537526	6.121689746	1.359035	3.45528	0.00047	0.01915
ENSG00000122756	CNTFR	1.398562912	1.138537693	2.31651084	5.821875013	5.475318798	6.631830558	-1.858557	2.2871	0.00047	0.01915
ENSG00000214121	PRDX1P1	65.26626924	87.66740237	72.39096375	45.11953135	52.26440671	48.97351797	0.618108	5.97096	0.00049	0.01963
ENSG00000077942	FBLN1	73.65764671	58.06542235	90.92305047	97.51640647	116.9727198	147.9408355	-0.702333	6.6246	0.00049	0.01967
ENSG00000261150	EPPK1	11.65469094	19.92440963	16.79470359	9.703125022	6.470831307	4.591267309	1.193016	3.62645	0.0005	0.01994
ENSG00000162783	IER5	22.84319423	10.81610808	11.00342649	39.29765634	25.88332523	27.54760386	-1.027	4.60021	0.00051	0.02019
ENSG00000118515	SGK1	66.19864451	63.75811081	46.90934451	116.4375003	86.60958826	80.09210751	-0.675083	6.28505	0.00051	0.0202
ENSG00000163517	HDAC11	13.05325385	11.38537693	6.94953252	3.396093758	5.475318798	2.550704061	1.456234	3.02671	0.00052	0.02055
ENSG00000113558	SKP1	241.0190085	222.0148501	214.8563804	155.7351566	178.1967391	153.0422436	0.478195	7.60799	0.00053	0.02076
ENSG00000115461	IGFBP5	21.44463132	27.32490463	29.53551321	16.49531254	11.94615011	14.79408355	0.842748	4.39761	0.00053	0.02076
ENSG00000168175	MAPK1IP1L	12.58706621	7.400495005	9.26604336	16.98046879	19.91025018	20.9157733	-0.954738	3.97256	0.00053	0.02076
ENSG00000224004	ATP5C1P1	499.7531473	398.4881926	439.5579319	582.1875013	639.1190306	625.9427765	-0.464365	9.05558	0.00053	0.02081
ENSG00000186350	RXRA	34.96407281	20.49367848	34.7476626	17.46562504	13.93717512	16.8346468	0.906043	4.58783	0.00053	0.02081
ENSG00000131779	PEX11B	25.64032006	17.64733424	23.74423611	12.61406253	12.44390636	10.71295706	0.909178	4.17932	0.00054	0.02081
ENSG00000149972	CNTN5	5.594251649	10.81610808	2.89563855	2.425781255	0	0.510140812	2.619796	2.21583	0.00054	0.02081
ENSG00000138363	ATIC	10.25612802	10.81610808	10.42429878	4.36640626	1.991025018	6.121689746	1.324902	3.04622	0.00054	0.02098
ENSG00000163624	CDS1	4.661876374	2.277075386	2.89563855	0.485156251	0	0.510140812	3.109134	1.50091	0.00055	0.02119
ENSG00000162413	KLHL21	48.94970193	33.58686195	58.49189871	27.16875006	14.43493138	31.11858954	0.954741	5.18904	0.00056	0.02126
ENSG00000087274	ADD1	83.91377474	139.4708674	116.4046697	66.4664064	69.18811936	78.05154426	0.664444	6.53703	0.00056	0.02126
ENSG00000172340	SUCLG2	123.0735363	127.5162216	103.6638601	74.22890642	78.64548819	89.78478294	0.54757	6.64953	0.00056	0.0214
ENSG00000153879	CEBPG	7.459002199	9.677570391	6.94953252	3.396093758	2.986537526	2.040563249	1.484897	2.67	0.00057	0.02141
ENSG00000264217	RPL35AP25	1.398562912	0	1.73738313	5.336718762	5.475318798	3.570985685	-2.108971	2.00775	0.00058	0.02194
ENSG00000151176	PLBD2	33.09932226	21.63221617	41.11806741	13.58437503	13.93717512	21.42591411	0.969853	4.64396	0.00058	0.02194
ENSG00000213862	CTD-2270N23.	165.0304236	117.2693824	156.9436094	200.3695317	246.8871022	205.5867473	-0.56945	7.51801	0.00059	0.02231
ENSG00000166341	DCHS1	23.77556951	39.84881926	44.01370596	16.98046879	23.39454396	15.30422436	0.937253	4.80138	0.00061	0.02277
ENSG00000113328	CCNG1	351.039291	466.8004542	357.9009248	251.3109381	276.7524774	290.7802629	0.521248	8.38015	0.00061	0.02277
ENSG00000091073	DTX2	1.398562912	1.70780654	0.57912771	6.792187515	3.982050035	4.591267309	-1.992421	2.09698	0.00062	0.02285
ENSG00000148985	PGAP2	44.75401319	58.63469119	48.64672764	32.99062507	29.86537526	33.15915279	0.657135	5.39777	0.00062	0.02285
ENSG00000238082	AC009948.7	2.797125825	1.70780654	3.47476626	9.217968771	6.470831307	8.162252994	-1.555636	2.68163	0.00063	0.0234
ENSG00000114982	KANSL3	47.08495138	68.31226158	53.85887703	33.47578133	32.85191279	39.28084254	0.674742	5.54143	0.00064	0.02343
ENSG00000217027	TPT1P4	73.65764671	50.0956585	86.8691565	114.4968753	126.9278449	95.39633187	-0.676502	6.53113	0.00066	0.02436
ENSG00000033627	ATP6V0A1	90.44040166	93.92935968	94.39781673	64.5257814	69.68587561	58.6661934	0.529532	6.31256	0.00067	0.02437
ENSG00000233762	AC007969.5	360.3630437	258.4480563	302.8837923	424.5117197	455.4469728	429.028423	-0.504236	8.54341	0.00067	0.0245
ENSG00000155846	PPARGC1B	30.76838407	26.18636694	19.11121443	38.81250009	49.27786918	39.79098335	-0.73586	5.13932	0.0007	0.02535
ENSG00000136842	TMOD1	178.0836775	212.9065486	201.5364431	138.2695316	151.8156576	133.6568928	0.481607	7.41083	0.00071	0.02567
ENSG00000116906	GNPAT	40.55832446	37.00247502	31.27289634	18.43593754	18.91473767	27.03746304	0.763928	4.89853	0.00072	0.02607
ENSG00000162599	NFIA	217.7096267	236.2465713	249.0249153	315.3515632	320.0572716	311.1858954	-0.430551	8.10877	0.00075	0.02698
ENSG00000072506	HSD17B10	71.79289616	54.64980927	85.71090108	103.8234377	98.05798211	126.0047806	-0.627252	6.51067	0.00076	0.02714
ENSG00000170464	DNAJC18	7.925189836	10.81610808	9.84517107	2.910937507	3.982050035	4.591267309	1.293095	2.9223	0.00077	0.02738
ENSG00000163660	CCNL1	55.94251649	42.12589464	44.59283367	76.65468767	77.64997568	63.25746071	-0.601263	5.9382	0.00077	0.0274
ENSG00000092969	TGFB2	6.526626924	8.539032698	5.7912771	3.881250009	1.493268763	1.020281624	1.659287	2.45983	0.00078	0.02763
ENSG00000159069	FBXW5	45.68638847	52.37273388	60.22928184	30.56484382	34.84293781	36.21999766	0.633217	5.46293	0.00078	0.02776
ENSG00000233383	RP11-324F21.1	2.797125825	1.138537693	2.31651084	5.821875013	5.973075053	7.652112182	-1.575533	2.43028	0.00079	0.02806
ENSG00000196296	ATP2A1	777.1347916	725.2485105	718.6974881	502.6218761	358.3845032	610.1284113	0.594544	9.26732	0.0008	0.02815

ENSG00000091542	ALKBH5	29.8360088	37.00247502	46.3302168	19.8914063	20.40800643	25.50704061	0.772845	4.93428	0.0008	0.02815
ENSG00000148400	NOTCH1	32.16694698	39.84881926	49.22585535	22.8023438	27.37659399	21.93605492	0.738825	5.04371	0.00081	0.02838
ENSG00000126882	FAM78A	13.51944149	16.50879655	12.16168191	4.851562511	9.457368833	4.591267309	1.148646	3.47294	0.00081	0.02838
ENSG00000102401	ARMCX3	9.789940386	12.52391462	8.10778794	26.19843756	24.39005646	13.26366112	-1.068785	4.0786	0.00083	0.02863
ENSG00000240463	RPS19P3	181.346991	106.4532743	131.4619902	214.439063	240.4162709	195.3839311	-0.628861	7.4892	0.00083	0.02863
ENSG00000196876	SCN8A	10.25612802	7.400495005	12.74080962	5.336718762	3.484293781	3.060844873	1.334938	2.99934	0.00083	0.02863
ENSG00000100226	GTPBP1	35.43026044	43.26443234	42.27632283	23.28750005	25.38556897	27.03746304	0.669526	5.07048	0.00083	0.02863
ENSG00000123131	PRDX4	14.45181676	15.9395277	12.74080962	32.02031257	26.87883774	19.89549167	-0.868204	4.42653	0.00083	0.02865
ENSG00000023171	GRAMD1B	33.09932226	37.00247502	38.22242886	60.15937514	45.29581915	64.78788314	-0.65512	5.57145	0.00085	0.02897
ENSG00000196440	ARMCX4	2.330938187	2.846344233	1.73738313	13.09921878	5.973075053	5.611548934	-1.810189	2.67998	0.00086	0.02945
ENSG00000165458	INPPL1	231.6952558	246.4934105	239.1797442	189.2109379	165.7528327	173.9580169	0.438753	7.70447	0.00087	0.02947
ENSG00000135631	RAB11FIP5	24.70794478	29.60198002	32.43115176	15.03984378	15.43044389	19.89549167	0.775921	4.56503	0.00088	0.02947
ENSG00000178209	PLEC	610.705805	576.1000727	748.812129	473.0273448	426.0793537	490.2453205	0.477996	9.11622	0.00088	0.02947
ENSG00000103269	RHBDL1	6.992814561	6.261957312	9.26604336	2.910937507	2.986537526	2.040563249	1.471877	2.5899	0.00088	0.02947
ENSG00000146926	ASB10	38.22738627	30.17124887	31.85202405	17.95078129	20.90576268	21.93605492	0.729024	4.7982	0.00088	0.02947
ENSG00000148411	NACC2	8.391377474	8.539032698	10.42429878	2.425781255	2.488781272	5.611548934	1.364639	2.85432	0.00088	0.02947
ENSG00000101335	MYL9	444.2768185	396.2111172	425.0797391	311.4703132	322.5460528	317.817726	0.411538	8.53335	0.00088	0.02947
ENSG00000154518	ATP5G3	5034.826484	3779.945141	4960.228836	6719.414078	7461.366253	5619.711187	-0.523432	12.4505	0.00088	0.02947
ENSG00000129682	FGF13	61.53676814	53.51127157	64.28317581	87.81328145	81.13426946	90.80506456	-0.53292	6.21635	0.00089	0.02952
ENSG00000186815	TPCN1	17.24894258	23.34002271	30.69376863	10.67343752	14.93268763	10.71295706	0.956257	4.22474	0.00089	0.02952
ENSG00000122550	KLHL7	71.32670853	72.86641236	60.80840955	29.59453132	48.78011293	49.99379959	0.678082	5.81881	0.00093	0.03069
ENSG00000244244	RPS3AP42	7.925189836	5.123419619	7.52866023	17.46562504	14.93268763	11.22309787	-1.068917	3.56886	0.00094	0.03087
ENSG00000115756	HPCAL1	13.05325385	14.80099001	7.52866023	19.40625004	20.90576268	28.56788548	-0.946777	4.21228	0.00094	0.03087
ENSG00000115268	RPS15	110.0202824	92.79082199	128.5663516	159.1312504	151.8156576	162.7349191	-0.51561	7.08048	0.00094	0.03087
ENSG00000101542	CDH20	0	0	1.15825542	3.396093758	5.973075053	1.530422436	-3.131406	1.62454	0.00095	0.0309
ENSG00000138459	SLC35A5	6.992814561	5.123419619	4.05389397	1.455468753	1.991025018	0.510140812	1.994745	2.12913	0.00095	0.03108
ENSG00000111540	RAB5B	53.6115783	83.11325159	50.96323848	38.32734384	33.8474253	42.34168741	0.708996	5.6764	0.00096	0.03116
ENSG00000162616	DNAJB4	160.3685473	155.4103951	152.8897154	106.249219	97.0624696	128.0453438	0.501141	7.06855	0.00097	0.03116
ENSG00000139914	FITM1	86.71090056	57.4961535	82.23613482	111.5859378	111.9951572	113.2512603	-0.568276	6.572	0.00097	0.03116
ENSG00000114988	LMAN2L	22.3770066	28.46344233	22.58598069	14.55468753	9.457368833	16.32450599	0.858024	4.30976	0.00099	0.03175
ENSG00000272325	NUDT3	8.857565111	7.400495005	8.68691565	4.851562511	0.995512509	3.060844873	1.463598	2.72582	0.001	0.03197
ENSG00000164068	RNF123	88.57565111	106.4532743	130.8828625	70.83281266	72.67241314	74.99069939	0.572096	6.51468	0.001	0.03197
ENSG00000133112	TPT1	408.3803704	363.7627929	406.5476524	556.9593763	631.6526868	463.2078574	-0.486634	8.88568	0.001	0.03203
ENSG00000135924	DNAJB2	72.2590838	50.0956585	56.75451558	39.29765634	39.82050035	37.24027929	0.628704	5.65216	0.00101	0.03209
ENSG00000112651	MRPL2	79.718086	67.17372389	68.91619749	110.130469	107.5153509	92.84562781	-0.520919	6.47517	0.00101	0.03209
ENSG00000177697	CD151	77.38714781	85.39032698	72.39096375	50.45625011	38.82498784	63.25746071	0.624794	6.03286	0.00105	0.0332
ENSG00000144712	CAND2	57.80726704	54.64980927	65.44143123	33.96093758	31.85640028	47.95323634	0.64485	5.62802	0.00106	0.03353
ENSG00000149654	CDH22	6.992814561	6.261957312	12.16168191	4.36640626	2.488781272	1.530422436	1.55748	2.7102	0.00107	0.03353
ENSG00000132780	NASP	22.3770066	16.50879655	16.21557588	32.50546882	27.87435025	32.13887117	-0.730839	4.69056	0.00107	0.03353
ENSG00000130821	SLC6A8	121.2087857	114.4230382	109.4551372	70.83281266	71.17914438	95.39633187	0.541743	6.61455	0.00107	0.03353
ENSG00000237793	RPL18AP16	3.263313462	3.984881926	7.52866023	11.15859378	8.959612579	17.85492843	-1.372898	3.30099	0.00107	0.03354
ENSG00000073921	PICALM	345.4450393	371.1632879	345.7392429	468.6609386	464.4065853	462.6977166	-0.39405	8.68241	0.00109	0.03381
ENSG00000129596	CDO1	0.932375275	2.277075386	39.95981199	0.970312502	0.995512509	1.530422436	3.550601	3.0405	0.00109	0.03381
ENSG00000129991	TNNI3	4223.193807	3223.200209	3830.929802	5112.576574	5268.749953	4873.375178	-0.435703	12.1109	0.00116	0.03581
ENSG00000235485	RP1-101G11.2	290.4348981	322.2061671	313.3080911	194.5476567	179.6900078	265.7833631	0.532642	8.03213	0.00116	0.03581
ENSG00000124702	KLHDC3	60.60439286	63.18884197	63.7040481	90.72421896	79.14324445	101.5180216	-0.533839	6.27833	0.00116	0.03581
ENSG00000188846	RPL14	186.475055	161.1030836	191.1121443	268.2914069	268.7883774	215.7895635	-0.482564	7.75814	0.00117	0.03581
ENSG00000119689	DLST	430.2911893	458.2614215	374.6956284	304.1929694	329.5146404	300.4729384	0.43557	8.52023	0.00117	0.03594
ENSG00000091986	CCDC80	70.86052089	59.20396004	62.54579268	102.8531252	94.57368833	82.13267076	-0.53382	6.3209	0.00118	0.03617
ENSG00000181524	RPL24P4	46.61876374	36.43320618	44.59283367	73.25859392	57.73972551	61.72703827	-0.59029	5.77132	0.0012	0.03628
ENSG00000092096	SLC22A17	7.459002199	8.539032698	7.52866023	1.940625004	2.986537526	4.081126497	1.370268	2.67023	0.0012	0.03628
ENSG00000104812	GYS1	92.30515221	95.63716622	108.2968818	62.10000014	44.30030664	81.62252994	0.654925	6.3485	0.0012	0.03628
ENSG00000196547	MAN2A2	20.04606841	35.29466849	37.64330115	15.03984378	16.92371265	18.36506924	0.870916	4.61877	0.0012	0.03632
ENSG00000177508	IRX3	15.85037967	11.95464578	9.84517107	26.68359381	18.41698141	24.9968998	-0.87575	4.26122	0.00122	0.03683
ENSG00000185739	SRL	317.0075934	512.3419619	355.0052862	280.4203131	262.8153023	248.4385755	0.579849	8.3663	0.00123	0.03699
ENSG00000119421	NDUFA8	134.7282272	113.8537693	132.6202456	187.2703129	176.2057141	163.2450599	-0.465176	7.25306	0.00124	0.03705
ENSG00000105810	CDK6	1.398562912	3.984881926	1.73738313	6.307031264	7.96410007	6.631830558	-1.561921	2.52109	0.00124	0.0371
ENSG00000221869	CEBPD	5.594251649	7.969763851	9.26604336	25.22812506	9.457368833	18.87521005	-1.239984	3.79226	0.00124	0.0371
ENSG00000112964	GHR	10.72231566	14.80099001	7.52866023	23.28750005	27.87435025	15.30422436	-1.005359	4.15039	0.00125	0.0371
ENSG00000213309	RPL9P18	4.661876374	2.846344233	5.21214939	9.217968771	9.457368833	11.22309787	-1.21167	3.03788	0.00125	0.0371
ENSG00000225200	AB019441.29	120.7425981	91.08301545	99.60996612	142.6359378	182.6765454	133.6568928	-0.555697	7.01903	0.00128	0.03776
ENSG00000111142	METAP2	184.1441168	154.8411263	165.0513973	229.964063	255.8467148	209.6678738	-0.462589	7.65227	0.0013	0.03845
ENSG00000108528	SLC25A11	582.2683591	560.160545	538.5887703	427.9078135	419.6085224	441.2718025	0.383688	8.95391	0.00131	0.0386
ENSG00000136158	SPRY2	37.76119863	27.89417348	32.43115176	54.82265637	52.26440671	44.38225066	-0.618837	5.42066	0.00132	0.0386
ENSG00000163485	ADORA1	2.797125825	3.415613079	3.47476626	10.18828127	6.470831307	8.672393807	-1.382875	2.79342	0.00132	0.0386
ENSG00000165092	ALDH1A1	21.44463132	14.23172116	53.85887703	9.703125022	10.45288134	15.30422436	1.327846	4.4243	0.00132	0.0386
ENSG00000119673	ACOT2	15.85037967	15.37025886	12.74080962	6.307031264	4.977562544	10.20281624	1.036588	3.56849	0.00132	0.0386
ENSG00000141905	NFIC	22.84319423	37.00247502	48.06759993	12.61406253	14.93268763	26.01718142	1.002441	4.78211	0.00136	0.03938
ENSG00000008988	RPS20	87.64327584	71.72787466	71.23270833	119.833594	103.0355447	106.1092889	-0.507637	6.56268	0.00137	0.03981
ENSG00000101337	TM9SF4	43.82163792	55.21907811	63.7040481	33.96093758	34.84293781	36.73013847	0.616492	5.50667	0.0014	0.04054
ENSG00000149582	TMEM25	10.72231566	9.108301545	8.10778794	3.396093758	4.479806289	4.081126497	1.225685	2.93385	0.00141	0.04061
ENSG00000131238	PPT1	20.97844368	21.63221617	21.42772527	5.821875013	11.94615011	15.30422436	0.9549	4.09314	0.00141	0.04061
ENSG00000236801	RPL24P8	80.18427364	52.37273388	80.49875169	113.5265628	107.5153509	98.45717674	-0.581184	6.49223	0.00142	0.04072
ENSG00000233597	RP11-343B5.1	92.30515221	73.4356812	85.71090108	116.9226565	115.9772073	119.37295	-0.482617	6.67018	0.00143	0.04085
ENSG00000142173	COL6A2	46.1525761	70.58933697	58.49189871	36.87187508	43.30479413	29.07802629	0.673516	5.58975	0.00145	0.04138
ENSG00000132475	H3F3B	204.1901852	177.0426113	191.1121443	228.023438	305.6223402	265.2732223	-0.479728	7.84397	0.00145	0.04138
ENSG00000115760	BIRC6	187.4074302	215.183624	163.8931419	263.4398443	304.1290714	234.1546328	-0.500997	7.84071	0.00146	0.04145
ENSG00000174748	RPL15	45.22020083	50.66492734	54.43800474	63.55546889	73.17016939	86.21379725	-0.571119	5.98405	0.00146	0.0415
ENSG00000093010	COMT	15.85037967	15.9395277	22.00685298	8.247656269	3.982050035	12.7535203	1.098924	3.80523	0.00147	0.04166
ENSG00000147853	AK3	39.62594918	46.11077657	27.79813008	21.8320313	20.40800643	25.50704061	0.746936	4.96094	0.00148	0.04177
ENSG00000197165	SULT1A2	0.932375275	0.569268847	1.15825542	3.396093758	2.488781272	9.182534619	-2.411525	2.00948	0.00149	0.04202

ENSG00000147684	NDUFB9	314.2104676	239.0929155	284.9308333	369.6890633	377.7969971	395.8692702	-0.446174	8.37296	0.00152	0.04243
ENSG00000169122	FAM110B	12.12087857	9.108301545	8.10778794	3.396093758	5.973075053	2.550704061	1.299298	2.98038	0.00152	0.04243
ENSG00000130957	FBP2	13.98562912	11.95464578	15.63644817	8.247656269	4.479806289	7.652112182	1.020713	3.49406	0.00152	0.04243
ENSG00000238193	RP11-555H23.3	601.8482399	580.6542235	589.5520088	300.3117194	294.1739463	532.0768671	0.65378	8.9185	0.00154	0.04301
ENSG00000121691	CAT	139.3901036	148.5791689	229.9137009	101.8828127	68.6903631	133.6568928	0.765927	7.10423	0.00155	0.04314
ENSG00000099901	RANBP1	16.31656731	15.9395277	14.47819275	26.68359381	27.87435025	22.95633655	-0.724822	4.45056	0.00157	0.04347
ENSG00000178996	SNX18	13.98562912	22.77075386	16.21557588	7.762500018	10.45288134	8.672393807	0.963164	3.82331	0.00161	0.04439
ENSG00000159314	ARHGAP27	4.661876374	7.969763851	5.21214939	10.67343752	12.44390636	14.79408355	-1.092904	3.37382	0.00161	0.04447
ENSG00000231500	RPS18	292.7658363	245.3548729	324.8906453	408.9867197	356.8912344	428.5182822	-0.468633	8.42662	0.00162	0.04447
ENSG00000184216	IRAK1	7.925189836	9.677570391	12.74080962	4.851562511	2.488781272	5.101408121	1.258654	3.00285	0.00169	0.04624
ENSG00000082146	STRADB	49.8820772	31.87905541	45.17196138	25.22812506	24.39005646	29.07802629	0.695853	5.14036	0.00169	0.04624
ENSG00000074964	ARHGEF10L	72.2590838	63.18884197	67.75794207	42.6937501	34.84293781	56.11548934	0.607172	5.83446	0.00171	0.04653
ENSG00000092439	TRPM7	59.20582995	69.45079928	62.54579268	82.96171894	100.5467634	88.76450131	-0.512015	6.2921	0.00171	0.04653
ENSG00000174804	FZD4	10.25612802	19.92440963	9.84517107	25.71328131	22.8967877	24.9968998	-0.888379	4.32437	0.00172	0.04653
ENSG00000238181	AHCYP2	2.797125825	4.554150772	4.63302168	1.455468753	0.497756254	0.510140812	2.158903	1.74607	0.00172	0.04653
ENSG00000237541	HLA-DQA2	5.128064012	7.969763851	5.21214939	0	2.488781272	2.550704061	1.82849	2.26897	0.00176	0.04754
ENSG00000146535	GNA12	48.94970193	68.88153043	53.85887703	36.38671883	31.35864403	42.85182822	0.629831	5.57994	0.00176	0.04754
ENSG00000166317	SYNPO2L	47.55113902	48.38785196	53.27974932	35.90156258	29.36761901	34.68957523	0.574481	5.40629	0.00177	0.04754
ENSG00000125148	MT2A	0.466187637	1.138537693	6.37040481	28.13906256	2.488781272	14.79408355	-2.518458	3.33248	0.00179	0.04798
ENSG00000156298	TSPAN7	44.28782556	33.58686195	37.06417344	53.85234387	54.25543173	64.78788314	-0.579605	5.62019	0.0018	0.04822
ENSG00000158125	XDH	37.29501099	34.72539964	35.32679031	65.4960939	35.83845032	97.43689512	-0.885829	5.70648	0.0018	0.04822
ENSG00000244734	HBB	193.4678695	401.9038057	854.7925	196.4882817	237.4297333	228.5430838	1.129364	8.45936	0.00181	0.04828
ENSG00000065978	YBX1	972.001224	879.5203679	871.0080758	1104.700784	1227.466923	1194.749782	-0.373003	10.0262	0.00183	0.04873
ENSG00000107954	NEURL1	3.263313462	2.846344233	4.05389397	0.485156251	0.497756254	1.020281624	2.241317	1.58827	0.00184	0.04882
ENSG00000204628	RACK1	643.3389396	578.9464169	644.5691412	788.378908	782.4728319	846.8337482	-0.372696	9.48233	0.00186	0.04914
ENSG00000088682	COQ9	324.000408	302.2817575	272.1900237	230.9343755	203.582308	234.1546328	0.427234	8.03432	0.00186	0.04914
ENSG00000076555	ACACB	180.4146157	277.8031971	255.9744478	162.0421879	128.9188699	183.6506924	0.58748	7.63466	0.00187	0.04921
ENSG00000196834	POTEI	59.20582995	38.14101272	60.80840955	39.29765634	31.35864403	26.52732223	0.702694	5.44407	0.00187	0.04929
ENSG00000103381	CPPED1	4.195688737	5.123419619	6.94953252	0.485156251	2.986537526	0.510140812	1.964836	2.10541	0.00191	0.04998
ENSG00000100307	CBX7	14.45181676	9.677570391	13.31993733	4.851562511	6.470831307	7.14197137	1.026294	3.36526	0.00191	0.04998
ENSG00000186260	MKL2	20.04606841	11.95464578	17.3738313	31.53515632	32.85191279	21.93605492	-0.793411	4.57587	0.00191	0.04998

Suppl table 5 Cardiac DEs for HFD_Spp_24hrs vs HFD_CTL

Ensembl ID	Gene Symbol	HFD_Spp_24hrs-1	HFD_Spp_24hrs-2	HFD_Spp_24hrs-3	HFD-CTL-1	HFD-CTL-2	HFD-CTL-3	logFC	logCPM	PValue	FDR
ENSG00000196296	ATP2A1	764.0262141	713.8262261	707.1660134	366.395546	410.7073383	355.9094	0.949101	9.114289	4.69E-15	5.30E-11
ENSG00000115593	SMYD1	351.9928809	364.7573573	315.6889375	179.4302095	176.9399539	151.0239	1.025279	8.010551	3.09E-14	1.74E-10
ENSG00000225024	AC015977.5	33.91598071	20.17091377	33.05046638	92.77625007	71.03428807	112.4758	-1.66077	5.94853	1.17E-13	4.38E-10
ENSG00000133112	TPT1	401.4918798	358.0337194	400.0246103	689.9350576	670.3053729	694.9211	-0.82534	9.068156	1.65E-12	4.66E-09
ENSG00000161533	ACOX1	78.83173895	87.407293	86.04517971	40.97225257	40.03750782	31.68333	1.159741	5.952999	1.75E-11	3.94E-08
ENSG00000136842	TMOD1	175.0797923	209.5533819	198.3027983	101.2532678	113.0090947	97.16222	0.90541	7.229609	3.48E-10	6.55E-07
ENSG00000181227	DLSTP1	113.6643678	114.8621478	114.5369611	64.04857873	61.9935605	60.19833	0.879475	6.482051	2.39E-09	3.85E-06
ENSG00000135218	CD36	199.3709677	251.5761189	177.7887157	92.77625007	120.1125235	98.74638	1.016753	7.301688	3.13E-09	4.42E-06
ENSG00000102858	MGRN1	98.99799775	104.776691	100.860906	56.04250639	50.36976791	57.03	0.892127	6.307513	5.46E-09	6.85E-06
ENSG00000181904	C5orf24	20.1662588	17.92970113	11.39671254	36.26279825	45.84940412	51.22139	-1.40706	4.972589	6.41E-09	7.20E-06
ENSG00000119938	PPP1R3C	32.08268446	40.9021307	35.89964451	16.48309011	13.56109136	12.67333	1.330331	4.721354	7.01E-09	7.20E-06
ENSG00000276293	PIP4K2B	21.99955505	23.53273273	30.77112387	8.477017773	6.457662552	9.505	1.61032	4.161151	1.29E-08	1.22E-05
ENSG00000063660	GPC1	323.5767889	284.0737022	389.1977334	157.2957742	169.1907589	206.4697	0.902933	8.000639	2.42E-08	1.98E-05
ENSG00000104812	GYS1	90.7481646	94.13093092	106.5592623	57.92628812	48.43246914	48.58111	0.902179	6.239566	2.58E-08	1.98E-05
ENSG00000185641	CTD-2287O16.1	199.8292917	145.1185185	180.6378938	298.5794038	304.8016725	400.2661	-0.93142	7.999538	2.63E-08	1.98E-05
ENSG00000130528	HRC	36.20760103	16.80909481	18.8045757	89.00868662	47.78670289	78.68027	-1.57253	5.626099	3.43E-08	2.31E-05
ENSG00000150401	DCUN1D2	17.87463848	30.25637065	21.08391821	7.535126909	7.103428807	5.280555	1.776506	3.989915	3.48E-08	2.31E-05
ENSG00000135821	GLUL	274.5361141	217.9579293	301.4430468	135.6322844	148.5262387	155.7764	0.852802	7.692272	3.89E-08	2.44E-05
ENSG00000146729	GBAS	342.3680755	349.0688688	296.8843618	158.7086105	215.040163	128.8455	0.980023	7.96319	4.31E-08	2.52E-05
ENSG00000162413	KLHL21	48.12402668	33.05788645	57.55339835	19.77970814	16.14415638	18.48194	1.339289	5.062459	4.47E-08	2.52E-05
ENSG00000105640	RPL18A	194.329403	144.5582153	223.9454015	356.0347465	332.5696214	346.4044	-0.87885	8.062377	5.04E-08	2.71E-05
ENSG00000236929	RP11-699A7.1	88.45654428	54.34940654	74.07863154	114.9106854	188.5637465	196.4367	-1.1971	6.908545	8.88E-08	4.56E-05
ENSG00000162889	MAPKAPK2	264.9113088	245.4127842	224.5152371	139.3998478	162.7330963	135.1822	0.753339	7.618596	9.50E-08	4.66E-05
ENSG00000133135	RNF128	53.16559138	64.99516659	62.11208336	24.96010789	31.64254651	32.73944	1.015378	5.521697	1.08E-07	5.08E-05
ENSG00000119421	NDUFA8	132.4556544	112.060632	130.4923586	197.3261359	205.3536692	220.1992	-0.72987	7.386216	1.21E-07	5.47E-05
ENSG00000264217	RPL35AP25	1.374972191	0	1.709506882	6.593236046	8.394961318	10.03306	-2.90719	2.506302	1.88E-07	8.16E-05
ENSG00000235485	RP1-101G11.2	285.5358917	317.1315887	308.2810743	199.2099177	149.8177712	191.6842	0.74724	7.926061	1.96E-07	8.17E-05
ENSG00000163110	PDLIM5	443.1993695	466.1722293	438.2035973	257.1362058	317.0712313	231.2883	0.744969	8.49131	2.04E-07	8.22E-05
ENSG00000187446	CHP1	32.99933258	40.34182754	35.89964451	19.77970814	14.20685761	12.67333	1.203396	4.762151	2.15E-07	8.36E-05
ENSG00000091436	MAP3K20	144.37208	133.3521521	166.9618388	251.4848606	224.0808906	275.1169	-0.75756	7.645876	2.28E-07	8.56E-05
ENSG00000167588	GPD1	52.24894326	54.9097097	68.38027526	21.66348986	30.351014	32.21139	1.064651	5.468581	2.45E-07	8.93E-05
ENSG00000213856	VDAC1P2	106.7895068	117.1033605	103.7100841	44.26887059	68.45122305	62.31055	0.914722	6.405452	2.73E-07	9.26E-05
ENSG00000125166	GOT2	380.8672969	374.282511	377.8010208	258.5490421	248.6200083	233.9286	0.611958	8.292421	2.79E-07	9.26E-05
ENSG00000168028	RPSA	37.58257322	24.09303589	37.03931577	66.87425132	66.51392429	62.31055	-0.97897	5.646301	2.79E-07	9.26E-05
ENSG00000198952	SMG5	81.58168333	89.64850564	79.77698781	51.8039975	41.97480659	44.88472	0.84646	6.047906	2.90E-07	9.35E-05
ENSG00000154518	ATP5G3	4949.899887	3720.412984	4880.642147	6911.124212	7568.380511	7542.745	-0.70046	12.53376	3.96E-07	0.00012
ENSG00000004864	SLC25A13	97.16470149	91.88971828	96.302221	51.33305207	59.41049548	54.91778	0.790205	6.253234	4.03E-07	0.00012
ENSG00000159423	ALDH4A1	59.58212827	68.35698555	53.56454896	33.90807109	30.351014	30.62722	0.929392	5.562089	4.52E-07	0.00013
ENSG00000218682	AC010150.1	123.2891731	76.20122979	98.01172788	169.06941	185.9806815	193.2683	-0.87551	7.149593	4.57E-07	0.00013
ENSG00000110717	NDUFS8	153.5385613	128.3094237	173.2300307	252.4267515	244.7454107	252.4105	-0.72014	7.656513	5.50E-07	0.00016
ENSG00000106633	GCK	50.415647	39.78152438	49.57569957	20.721599	20.66452017	26.40278	1.042882	5.162214	6.12E-07	0.00017
ENSG00000112695	COX7A2	16.95799035	15.12818533	20.51408258	35.79185282	34.22561153	46.99694	-1.15675	4.872089	6.24E-07	0.00017
ENSG00000145494	NDUFS6	118.2476084	107.0179036	111.6877829	168.5984646	178.8772527	192.7403	-0.67836	7.201316	7.38E-07	0.00019
ENSG00000224004	ATP5C1P1	491.3233962	392.2122122	432.505241	675.3357493	665.7850091	693.865	-0.6277	9.128169	7.74E-07	0.0002
ENSG00000101558	VAPA	164.5383388	159.1260975	152.1461125	253.8395878	228.6012543	260.3314	-0.64302	7.673778	7.86E-07	0.0002
ENSG00000242058	RPS4XP19	38.04089728	25.77394537	47.86619268	71.11276021	71.68005433	80.26444	-0.99721	5.826822	8.09E-07	0.0002
ENSG00000066926	FECH	73.79017425	88.52789932	79.77698781	44.73981602	51.01553416	31.15528	0.935873	5.965996	9.91E-07	0.00024
ENSG00000182606	TRAK1	170.9548757	213.4755041	182.3474007	123.3877031	109.1344971	112.4758	0.711575	7.258267	1.04E-06	0.00025
ENSG00000169047	IRS1	20.1662588	20.17091377	23.36326072	45.68170689	40.68327408	40.13222	-0.9957	5.032163	1.24E-06	0.00029
ENSG00000074416	MGLL	14.66637004	16.80909481	15.95539756	5.18039975	5.811896297	5.280555	1.534572	3.547723	1.30E-06	0.00029
ENSG00000242706	RPS27AP9	56.37385983	42.02273702	43.87734329	74.88032366	88.46997697	97.69027	-0.86396	6.091572	1.39E-06	0.0003
ENSG00000240371	RPS4XP13	97.16470149	63.87456027	94.59271411	166.7146829	133.0278486	243.9617	-1.08816	7.071096	1.42E-06	0.0003
ENSG00000149596	JPH2	373.0757878	331.1391677	352.7282532	248.1882426	220.8520593	224.4236	0.606958	8.194828	1.44E-06	0.0003
ENSG00000100412	ACO2	1433.637671	1660.738567	1513.483426	1063.865731	1053.244762	883.4369	0.618762	10.30964	1.45E-06	0.0003
ENSG00000233055	RP11-490D19.8	288.7441601	258.2997569	286.0574849	435.153579	408.1242733	405.0186	-0.58322	8.442712	1.50E-06	0.00031
ENSG00000251939	RNU6-1278P	0.916648127	1.12060632	2.849178136	6.593236046	9.040727573	11.08917	-2.43741	2.637824	1.77E-06	0.00036
ENSG00000115268	RPS15	108.164479	91.32941512	126.5035092	157.7667197	200.1875391	215.4467	-0.81272	7.235404	2.02E-06	0.0004
ENSG00000217027	TPT1P4	72.41520206	49.3066781	85.47534408	108.7883948	152.4008362	143.103	-0.95963	6.68125	2.05E-06	0.0004
ENSG00000084234	APLP2	414.3249535	452.1646503	437.6337617	308.9402033	274.4506585	296.2392	0.565893	8.512284	2.86E-06	0.00054
ENSG00000249617	RP11-366M4.17	121.4558769	77.32183611	86.61501533	150.2315928	182.7518502	181.123	-0.84069	7.068391	2.88E-06	0.00054
ENSG00000185834	RPL12P4	10.54145346	5.603031602	15.95539756	27.78578048	29.05948149	25.87472	-1.3616	4.328102	3.07E-06	0.00057
ENSG00000185088	RPS27L	4.583240636	5.042728442	5.128520645	11.7736358	14.85262387	19.53805	-1.63241	3.474171	3.27E-06	0.0006
ENSG00000112651	MRPL2	78.37341488	66.11577291	67.81043964	107.8465039	115.5921597	124.0931	-0.70507	6.559309	3.35E-06	0.0006
ENSG00000100994	PYGB	622.8624025	592.2404404	589.7798741	442.2177605	402.312377	399.21	0.536619	8.992498	4.19E-06	0.00074
ENSG00000062485	CS	515.1562475	528.3658801	495.18716	339.0807109	379.7105581	301.5197	0.594241	8.740037	4.79E-06	0.00082
ENSG00000233383	RP11-324F21.1	2.749944382	1.12060632	2.279342509	7.064181478	9.686493828	9.505	-2.01314	2.676315	4.79E-06	0.00082
ENSG00000198959	TGM2	52.24894326	59.95243815	49.57569957	29.19861677	32.93407902	26.93083	0.865508	5.422274	4.84E-06	0.00082
ENSG00000242299	RP11-234A1.1	175.5381164	143.9979122	155.5651262	242.5368974	227.9554881	274.0608	-0.64674	7.675193	5.08E-06	0.00084
ENSG00000146085	MUT	116.4143122	136.1536679	111.6877829	67.34519675	69.74275556	83.43277	0.722478	6.623368	5.17E-06	0.00085
ENSG00000197444	OGDHL	321.7434927	327.2170456	293.465348	211.4544989	224.7266568	181.123	0.612158	8.028367	5.73E-06	0.00092
ENSG00000234031	RPS3AP44	8.249833146	7.283941083	6.838027526	16.48309011	27.76794897	17.95389	-1.43726	3.897852	5.85E-06	0.00093
ENSG00000220069	RPL7P27	10.0831294	3.922122122	9.117370035	25.43105332	18.7272214	19.01	-1.43258	3.957513	6.04E-06	0.00095
ENSG00000171867	PRNP	46.29073043	44.26394966	42.16783641	24.01821702	24.5391177	24.29055	0.867426	5.146605	6.58E-06	0.001

ENSG00000136872	ALDOB	16.95799035	21.85182325	303.7223893	8.006072341	7.103428807	10.56111	3.724539	5.942701	6.63E-06	0.001
ENSG00000112964	GHR	10.54145346	14.56788217	7.407863154	18.83781727	38.74597531	33.79555	-1.47101	4.415358	6.66E-06	0.001
ENSG00000183298	RPSAP19	53.62391545	34.17849277	52.99471333	92.30530464	80.07501565	80.26444	-0.8403	6.059534	7.03E-06	0.00104
ENSG00000073905	VDAC1P1	118.2476084	119.9048763	111.1179473	54.62967009	84.59537943	65.47889	0.782687	6.543916	7.17E-06	0.00105
ENSG00000164587	RPS14	1176.976195	834.8517088	1181.839091	1696.345445	1593.751118	1906.28	-0.70214	10.45063	7.65E-06	0.00111
ENSG00000141552	ANAPC11	14.20804597	10.08545688	7.977698781	22.60538073	23.24758519	31.15528	-1.2285	4.270238	8.03E-06	0.00115
ENSG00000235907	RP4-580O19.2	13.29139785	19.05030745	13.67605505	28.25672591	32.93407902	34.85167	-1.06183	4.619397	8.22E-06	0.00116
ENSG00000122359	ANXA11	82.95665552	86.28668668	92.88320723	51.8039975	52.30706667	57.03	0.698917	6.16278	8.30E-06	0.00116
ENSG00000219023	RP3-340B19.2	14.20804597	10.64576004	12.5363838	23.54727159	27.12218272	31.68333	-1.12128	4.388937	8.55E-06	0.00118
ENSG00000196776	CD47	10.54145346	6.723637923	14.24589068	21.19254443	30.351014	25.87472	-1.28075	4.24776	9.05E-06	0.00122
ENSG00000231006	RPL7P32	77.91509082	43.14334334	67.81043964	105.0208313	114.9463934	126.7333	-0.86865	6.496533	9.08E-06	0.00122
ENSG00000147123	NDUFB11	106.7895068	74.52032031	125.363838	181.3139913	162.0873301	192.2122	-0.80499	7.144223	9.24E-06	0.00123
ENSG00000135766	EGLN1	87.99822022	91.32941512	78.63731655	49.92021578	59.41049548	44.88472	0.750353	6.1247	9.92E-06	0.0013
ENSG00000102683	SGCG	72.87352612	74.52032031	66.67076838	43.32697973	45.20363787	23.7625	0.935082	5.794869	1.05E-05	0.00135
ENSG00000119689	DLST	423.0331107	451.044044	368.6836508	284.4510408	282.1998535	272.4767	0.566803	8.443631	1.05E-05	0.00135
ENSG00000159592	GPBP1L1	54.99888764	48.18607178	41.02816516	76.29315996	78.78348314	89.24138	-0.75264	6.040243	1.10E-05	0.00139
ENSG00000140945	CDH13	84.78995177	114.3018447	88.89435784	58.86817898	51.66130042	59.14222	0.755202	6.274099	1.11E-05	0.00139
ENSG00000214389	RPS3AP26	56.37385983	47.06546546	47.29635706	85.71206859	83.94961318	78.15222	-0.71057	6.076291	1.16E-05	0.00144
ENSG00000177981	ASB8	51.33229513	41.46243386	46.72652143	21.66348986	29.05948149	24.81861	0.901928	5.208045	1.23E-05	0.0015
ENSG00000185739	SRL	311.6603633	504.2728442	349.3092395	257.1362058	182.106084	206.9978	0.847013	8.24352	1.24E-05	0.0015
ENSG00000004799	PDK4	158.121802	193.3045903	160.1238112	126.6843212	80.7207819	83.96083	0.803675	7.078164	1.32E-05	0.00159
ENSG00000242262	RP11-100N21.1	282.3276232	246.5333905	268.3925804	362.1570371	388.1055194	431.4214	-0.56639	8.369853	1.37E-05	0.00163
ENSG00000213862	CTD-2270N23.1	162.2467185	115.422451	154.425455	217.5767895	230.5385531	241.3214	-0.67104	7.554038	1.40E-05	0.00164
ENSG00000108107	RPL28	370.3258434	265.583698	385.208884	553.3608824	501.1146141	587.7258	-0.68529	8.797662	1.49E-05	0.00173
ENSG00000005339	CREBBP	75.6234705	91.88971828	98.01172788	149.2897019	128.5074848	141.5189	-0.6666	6.847273	1.55E-05	0.00178
ENSG00000161547	SRSF2	123.2891731	104.2163878	108.2687692	167.6565737	169.8365251	168.4497	-0.58766	7.142843	1.79E-05	0.00201
ENSG00000237550	RPL9P9	99.91464587	73.39971399	105.419591	129.5099938	185.9806815	166.3375	-0.78394	6.994102	1.80E-05	0.00201
ENSG00000149577	SIDT2	46.74905449	55.47001286	45.01701455	20.25065357	29.70524774	29.57111	0.899468	5.278245	1.81E-05	0.00201
ENSG00000169253	RP11-220D10.1	1.374972191	0.56030316	1.139671254	11.30269036	5.811896297	4.7525	-2.7507	2.405878	1.83E-05	0.00201
ENSG00000130255	RPL36	132.9139785	78.44244243	135.6208793	167.6565737	247.3284758	241.3214	-0.91544	7.391724	1.87E-05	0.00201
ENSG00000225200	AB019441.29	118.7059325	89.64850564	98.01172788	144.5802476	168.5449926	177.9547	-0.67425	7.064828	1.87E-05	0.00201
ENSG00000136859	ANGPTL2	53.62391545	67.79668239	68.38027526	36.73374368	32.93407902	39.60416	0.784201	5.6699	1.88E-05	0.00201
ENSG00000163382	NAXE	47.20737856	47.06546546	49.00586394	78.17694169	78.13771688	73.92777	-0.68396	5.982506	1.89E-05	0.00201
ENSG00000166016	ABTB2	44.91575824	45.38455598	45.58685018	24.96010789	22.60181893	28.515	0.828552	5.189511	1.90E-05	0.00201
ENSG00000173915	USMG5	198.9126436	187.7015587	239.3309634	284.4510408	340.9645828	336.8994	-0.61981	8.052562	1.94E-05	0.00203
ENSG00000165410	CFL2	400.5752316	384.3679679	344.7505545	546.7676464	507.5722766	581.3891	-0.53376	8.851793	2.06E-05	0.00213
ENSG00000109079	TNFAIP1	29.33274007	34.73879593	31.3409595	15.54119925	15.49839013	17.95389	0.952869	4.652893	2.08E-05	0.00214
ENSG00000116688	MFN2	474.8237299	639.3059058	580.0926685	416.3157617	291.2405811	328.9786	0.705939	8.83391	2.12E-05	0.00216
ENSG00000048740	CELF2	67.37363736	61.63334763	45.01701455	87.12490489	97.51070454	115.1161	-0.77677	6.321659	2.25E-05	0.00227
ENSG00000128928	IVD	156.2885057	150.7215501	145.8779206	104.0789404	105.9056659	89.76944	0.597323	6.984056	2.28E-05	0.00227
ENSG00000008988	RPS20	86.16492397	70.59819819	70.08978215	103.607995	127.2159523	143.6311	-0.71575	6.660546	2.41E-05	0.00238
ENSG00000148985	PGAP2	43.99911011	57.7112255	47.86619268	27.31483505	29.70524774	26.93083	0.831121	5.320009	2.49E-05	0.00244
ENSG00000149257	SERPINH1	240.1618093	258.2997569	202.8614833	162.0052286	158.2127325	136.2383	0.62008	7.601035	2.52E-05	0.00244
ENSG00000083720	OXCT1	357.0344456	368.1191763	275.8004436	218.9896258	229.2470206	202.7733	0.622133	8.11132	2.53E-05	0.00244
ENSG00000095321	CRAT	340.0764552	321.614014	312.8397593	237.8274431	231.1843194	197.4928	0.548687	8.101713	2.62E-05	0.00249
ENSG00000123684	LPGAT1	44.45743417	40.9021307	50.14553519	69.22897848	73.6173531	79.20833	-0.71179	5.9199	2.62E-05	0.00249
ENSG00000159199	ATP5G1	710.4022986	531.7276991	795.4905356	1073.755585	976.3985779	1242.515	-0.69247	9.79681	2.72E-05	0.00256
ENSG00000154582	ELOC	88.91486835	93.0103246	104.2799198	152.5863199	127.2159523	179.0108	-0.68578	6.968881	2.84E-05	0.00265
ENSG00000177600	RPLP2	550.4472004	330.5788645	508.8632151	688.9931668	801.3959227	889.7736	-0.77502	9.297599	2.98E-05	0.00273
ENSG00000129116	PALLD	80.6650352	94.69123408	87.18485096	53.2168338	58.76472923	53.33361	0.667997	6.17666	2.98E-05	0.00273
ENSG00000230849	GOT2P2	95.7897293	118.2239668	103.7100841	56.51345182	68.45122305	72.34361	0.68885	6.44022	2.99E-05	0.00273
ENSG00000176986	SEC24C	77.45676676	110.3797226	95.16254974	58.86817898	49.72400165	60.19833	0.734835	6.254934	3.19E-05	0.00288
ENSG00000099795	NDUFB7	156.2885057	110.3797226	168.10151	237.3564976	220.8520593	240.2653	-0.68339	7.569442	3.22E-05	0.00289
ENSG00000168209	DDIT4	12.83307378	11.76636636	18.23474007	4.709454318	5.166130042	5.808611	1.434152	3.43488	3.28E-05	0.00291
ENSG00000224631	RPS27AP16	296.5356692	241.4906621	260.9847173	405.4840168	355.8172066	421.3883	-0.56531	8.372719	3.31E-05	0.00292
ENSG00000270672	MTRNR2L6	622.4040784	759.7710853	887.2340715	1244.708776	1061.639724	1185.485	-0.62277	9.90866	3.40E-05	0.00297
ENSG00000184083	FAM120C	12.83307378	12.32666953	14.24589068	24.96010789	25.18488395	27.45889	-0.97679	4.35778	3.54E-05	0.00307
ENSG00000180211	RP1-278E11.3	87.99822022	80.12335191	104.8497554	199.6808631	114.9463934	167.3936	-0.82591	6.990937	3.81E-05	0.00326
ENSG00000187079	TEAD1	109.5394512	112.060632	82.62616594	136.5741752	175.0026552	191.6842	-0.72155	7.081663	3.82E-05	0.00326
ENSG00000213051	RPL5P5	2.749944382	0	2.849178136	7.064181478	7.749195063	8.448889	-1.97565	2.548504	3.87E-05	0.00329
ENSG00000111481	COPZ1	32.08268446	37.54031174	45.01701455	16.01214468	25.83065021	15.31361	1.019415	4.883392	4.20E-05	0.00354
ENSG00000166123	GPT2	17.41631442	7.844244243	17.66490444	3.767563455	3.874597531	5.808611	1.665188	3.404278	4.40E-05	0.00367
ENSG00000104888	SLC17A7	46.74905449	43.14334334	53.56454896	24.48916246	28.41371523	29.57111	0.801391	5.275252	4.64E-05	0.00385
ENSG00000108960	MMD	19.70793474	27.45485485	21.65375383	10.83174493	10.33226008	11.08917	1.077649	4.162567	4.83E-05	0.00398
ENSG00000243256	RPL30P14	39.87419354	24.65333905	46.1566858	60.28101528	63.93085927	82.37666	-0.89715	5.751684	4.90E-05	0.00399
ENSG00000091542	ALKBH5	29.33274007	36.41970542	45.58685018	21.66348986	18.08145515	16.36972	0.969814	4.854949	4.91E-05	0.00399
ENSG00000100911	PSME2	22.91620318	33.05788645	30.20128824	46.15265232	54.24436544	50.16528	-0.8097	5.331804	4.98E-05	0.00401
ENSG00000135390	ATP5G2	469.7821652	348.5085657	491.1983106	612.7000068	660.6188791	784.6905	-0.65171	9.135016	5.02E-05	0.00402
ENSG00000234335	RPS4XP11	0.916648127	1.12060632	1.139671254	5.651345182	5.811896297	5.280555	-2.33751	2.11962	5.28E-05	0.0042
ENSG00000156298	TSPAN7	43.54078605	33.05788645	36.46948014	66.87425132	52.30706667	76.04	-0.78691	5.71716	5.39E-05	0.00424
ENSG00000233045	AC097523.1	18.33296255	17.92970113	15.95539756	28.25672591	37.4544428	32.73944	-0.89638	4.700573	5.41E-05	0.00424
ENSG00000168079	SCARA5	7.791509082	7.844244243	5.128520645	1.412836296	1.937298766	1.584167	2.063291	2.431854	5.44E-05	0.00424
ENSG00000138449	SLC40A1	26.58279569	21.29152009	29.63145261	14.12836296	12.9153251	11.08917	1.016842	4.351589	5.63E-05	0.00435
ENSG00000100934	SEC23A	51.79061919	69.47759187	63.25175462	41.443198	34.87137778	31.68333	0.760184	5.638726	6.14E-05	0.00472
ENSG00000125691	RPL23	471.1571374	374.282511	439.3432686	576.4372086	615.4152412	813.7336	-0.64187	9.101801	6.24E-05	0.00473

ENSG00000132763	MMACHC	24.74949944	30.81667381	25.64260322	13.65741752	9.686493828	16.36972	1.005283	4.413256	6.25E-05	0.00473
ENSG00000102309	PIN4	29.33274007	14.56788217	22.79342509	42.8560343	39.39174157	45.94083	-0.92756	5.071789	6.32E-05	0.00476
ENSG00000263232	ATP5A1P3	76.99844269	34.17849277	70.65961777	94.6600318	132.3820823	137.2944	-0.99515	6.521684	6.42E-05	0.00477
ENSG00000259330	INAFM2	24.74949944	28.57546117	34.75997326	44.73981602	54.24436544	53.86166	-0.79754	5.356891	6.43E-05	0.00477
ENSG00000187642	PERM1	20.1662588	25.77394537	21.65375383	13.18647209	8.394961318	9.505	1.085275	4.136903	6.48E-05	0.00478
ENSG00000138867	GUCD1	15.1246941	13.44727585	11.96654817	6.593236046	5.166130042	4.224444	1.32672	3.40507	6.66E-05	0.00488
ENSG00000136830	FAM129B	27.95776788	28.01515801	25.0727676	13.65741752	14.85262387	14.2575	0.92658	4.443444	6.78E-05	0.00494
ENSG00000175931	UBE2O	44.45743417	53.78910338	44.44717892	27.31483505	20.01875391	32.21139	0.82532	5.256847	6.93E-05	0.00501
ENSG00000166317	SYNPO2L	46.74905449	47.62576862	52.4248777	28.72767134	32.28831276	26.40278	0.751056	5.324875	7.13E-05	0.00513
ENSG00000239344	RP11-771F20.1	6.416536891	2.801515801	3.419013763	14.59930839	9.040727573	14.2575	-1.54892	3.265122	7.44E-05	0.00531
ENSG00000227008	RP3-417G15.1	46.74905449	25.77394537	39.8884939	62.164797	73.6173531	63.36666	-0.81006	5.725119	7.47E-05	0.00531
ENSG00000078699	CBFA2T2	8.708157209	9.525153724	7.407863154	19.30876271	17.43568889	18.48194	-1.1041	3.861049	7.72E-05	0.00542
ENSG00000196821	C6orf106	109.0811271	102.5354783	113.9671254	64.99046959	62.63932676	82.37666	0.629595	6.499	7.73E-05	0.00542
ENSG00000011198	ABHD5	35.74927696	38.66091806	33.620302	16.01214468	20.66452017	22.70639	0.871124	4.856795	7.84E-05	0.00546
ENSG00000154122	ANKH	143.913756	133.9124553	131.6320299	90.89246835	83.30384692	101.3867	0.569231	6.850768	8.41E-05	0.00582
ENSG00000129559	NEDD8	48.12402668	32.49758329	35.89964451	90.89246835	50.36976791	76.56805	-0.90317	5.837425	8.65E-05	0.00594
ENSG00000112992	NNT	271.7861697	267.2646074	250.727676	181.7849367	202.1248379	149.9678	0.567743	7.792464	8.68E-05	0.00594
ENSG00000119715	ESRRB	15.1246941	15.68848849	19.94424695	7.064181478	3.874597531	9.505	1.26537	3.700731	8.77E-05	0.00596
ENSG00000147862	NFIB	396.9086391	358.5940226	353.2980889	512.8595753	483.0331589	558.1547	-0.48665	8.797405	8.99E-05	0.00605
ENSG00000111667	USP5	159.4967741	155.2039754	120.2353173	102.1951587	96.21917203	77.09611	0.660041	6.902941	9.05E-05	0.00605
ENSG00000167315	ACAA2	118.2476084	75.64092663	100.2910704	150.7025382	168.5449926	149.4397	-0.66511	7.001547	9.06E-05	0.00605
ENSG00000256356	HSPA8P5	223.6621431	207.3121693	185.7664145	128.5681029	157.5669663	128.3175	0.579141	7.434446	9.29E-05	0.00617
ENSG00000022267	FHL1	93.95643305	120.4651795	109.4084404	63.10668787	80.7207819	59.14222	0.678399	6.47079	9.42E-05	0.0062
ENSG00000136942	RPL35	127.8724138	133.3521521	148.1572631	190.2619545	189.2095128	213.8625	-0.53753	7.393038	9.45E-05	0.0062
ENSG00000065154	OAT	96.24805337	82.92486772	94.59271411	58.86817898	67.15969054	45.41278	0.6823	6.234504	0.0001	0.00668
ENSG00000119446	RBM18	23.37452725	22.97242957	21.08391821	12.24458123	12.9153251	5.280555	1.153935	4.122927	0.0001	0.00669
ENSG00000175920	DOK7	13.29139785	11.76636636	10.25704129	3.296618023	5.166130042	4.7525	1.441954	3.201619	0.00011	0.0069
ENSG00000103249	CLCN7	12.83307378	15.68848849	15.38556193	5.18039975	6.457662552	6.864722	1.240373	3.516374	0.00011	0.0069
ENSG00000231096	NDUFB4P3	9.624805337	12.32666953	21.65375383	21.19254443	41.97480659	43.82861	-1.29716	4.684745	0.00011	0.00692
ENSG00000197879	MYO1C	86.16492397	107.5782068	102.0005773	64.99046959	58.76472923	68.11916	0.616025	6.363707	0.00011	0.00699
ENSG00000233762	AC007969.5	354.2845012	254.3776347	298.024033	492.1379763	399.0835457	481.5866	-0.59792	8.574401	0.00011	0.00699
ENSG00000197226	TBC1D9B	76.54011863	77.32183611	82.62616594	52.74588837	34.22561153	55.97389	0.710811	6.011877	0.00011	0.00699
ENSG00000108947	EFNB3	142.0804597	115.422451	132.2018655	73.9384328	97.51070454	82.90472	0.624392	6.760627	0.00011	0.00699
ENSG00000109861	CTSC	8.249833146	9.525153724	7.977698781	2.825672591	3.874597531	1.584167	1.642729	2.751526	0.00011	0.00699
ENSG00000215464	AP000354.2	11.45810159	14.56788217	21.65375383	27.78578048	36.16291029	31.15528	-1.00232	4.619599	0.00011	0.00699
ENSG00000162909	CAPN2	44.91575824	50.98758758	48.43602831	29.19861677	32.28831276	25.34667	0.735176	5.306115	0.00011	0.00699
ENSG00000113578	FGF1	22.45787912	42.58304018	29.06161699	16.95403555	9.686493828	15.31361	1.131921	4.570489	0.00011	0.00699
ENSG00000228224	NACAP1	48.12402668	44.26394966	50.71537082	65.93236046	76.20041812	83.43277	-0.65254	5.962829	0.00012	0.00725
ENSG00000120992	LYPLA1	21.08290693	18.49000429	10.25704129	7.535126909	6.457662552	5.280555	1.368271	3.674192	0.00012	0.00725
ENSG00000169504	CLIC4	38.04089728	50.98758758	34.19013763	24.96010789	21.95605268	20.06611	0.870388	5.036627	0.00012	0.00725
ENSG00000099875	MKNK2	116.4143122	99.73396252	147.0175918	70.64181478	64.57662552	87.12916	0.703293	6.625676	0.00012	0.00725
ENSG00000144744	UBA3	74.24849831	75.08062347	62.11208336	44.73981602	45.20363787	44.88472	0.65127	5.8799	0.00012	0.00725
ENSG00000116497	S100PBP	2.291620318	1.680909481	1.709506882	8.947963205	7.103428807	5.808611	-1.89986	2.502278	0.00012	0.00725
ENSG00000137094	DNAJB5	141.1638116	121.5857858	101.4307416	85.24112316	56.82743046	79.73639	0.709287	6.631724	0.00012	0.00725
ENSG00000162852	CNST	24.74949944	20.73121693	21.08391821	36.26279825	40.68327408	38.02	-0.77369	4.965475	0.00013	0.00751
ENSG00000266563	EIF1P5	46.74905449	26.33424853	58.6930696	64.51952416	87.82421071	109.3075	-0.98569	6.053249	0.00013	0.00759
ENSG00000172115	CYCS	96.70637743	80.12335191	119.0956461	155.4119925	147.2347062	151.5519	-0.61957	6.977497	0.00013	0.00764
ENSG00000175445	LPL	771.8177232	1028.716602	858.1724546	669.6844041	438.4752873	577.6928	0.655378	9.502585	0.00014	0.00781
ENSG00000173599	PC	57.29050796	44.82425282	83.19600157	36.26279825	33.57984527	31.15528	0.870099	5.608982	0.00014	0.00781
ENSG00000213261	EEF1B2P6	48.58235075	41.46243386	43.30750767	67.34519675	75.55465186	66.535	-0.64147	5.860232	0.00014	0.00782
ENSG00000119471	HSDL2	127.4140897	152.4024596	123.0844955	83.82828687	102.6768346	72.34361	0.643117	6.797886	0.00014	0.00782
ENSG00000157870	FAM213B	0.458324064	1.12060632	2.279342509	4.709454318	5.811896297	7.920833	-2.25655	2.234921	0.00014	0.00791
ENSG00000174996	KLC2	39.41586947	36.41970542	41.59800079	24.96010789	21.95605268	21.65028	0.768544	5.007102	0.00014	0.00797
ENSG00000147853	AK3	38.95754541	45.38455598	27.35211011	16.95403555	21.31028642	20.59417	0.933449	4.884857	0.00014	0.00802
ENSG00000132589	FLOT2	58.66548015	64.43486343	63.82159025	33.90807109	44.55787161	39.07611	0.677307	5.692817	0.00015	0.00811
ENSG00000169567	HINT1	106.7895068	115.422451	118.5258105	146.4640293	176.9399539	174.2583	-0.54506	7.134944	0.00015	0.00813
ENSG00000170417	TMEM182	21.08290693	21.85182325	27.35211011	15.07025382	9.040727573	9.505	1.027977	4.20716	0.00015	0.00835
ENSG00000111897	SERINC1	149.4136447	196.6664092	143.5985781	90.42152291	125.9244198	81.84861	0.72083	7.046576	0.00015	0.00835
ENSG00000213598	RP11-112J1.1	23.83285131	8.404547404	13.10621943	35.79185282	27.76794897	36.96389	-1.1252	4.677188	0.00016	0.00861
ENSG00000183873	SCN5A	293.3274007	531.1673959	592.0592167	283.0382045	198.2502404	287.2622	0.879345	8.512241	0.00016	0.00861
ENSG00000123505	AMD1	128.7890619	161.9276133	105.9894267	76.76410539	94.92763952	73.92777	0.696144	6.755958	0.00016	0.0087
ENSG00000235587	GAPDHP65	556.8637373	563.104676	565.2769422	434.2116882	415.2277021	405.5466	0.424757	8.940119	0.00016	0.0087
ENSG00000137872	SEMA6D	26.12447163	31.37697697	20.51408258	39.08847084	46.49517038	51.74944	-0.80919	5.202717	0.00017	0.00889
ENSG00000134531	EMP1	18.33296255	21.29152009	9.117370035	40.03036171	30.351014	29.57111	-1.03172	4.697371	0.00017	0.00889
ENSG00000213939	RP11-314A20.1	11.45810159	7.844244243	9.687205662	18.83781727	23.24758519	18.48194	-1.03223	3.990615	0.00017	0.00894
ENSG00000129991	TNNI3	4151.957693	3172.436493	3769.462674	5604.721584	4750.256573	5475.408	-0.51291	12.13205	0.00017	0.00894
ENSG00000123562	MORF4L2	83.41497958	68.91728871	80.91665906	109.2593402	116.8836922	118.8125	-0.56015	6.605256	0.00017	0.00894
ENSG00000107331	ABCA2	66.45698923	73.96001715	74.07863154	51.8039975	43.91210536	41.18833	0.638563	5.899628	0.00017	0.00894
ENSG00000164754	RAD21	38.04089728	44.82425282	33.05046638	57.45534268	69.09698931	60.19833	-0.68116	5.681427	0.00017	0.00894
ENSG00000149806	FAU	159.4967741	111.5003289	173.7998663	195.9132996	252.4946058	275.1169	-0.69951	7.611447	0.00017	0.00894
ENSG00000243404	RPL35AP32	45.83240636	33.05788645	34.19013763	51.8039975	64.57662552	79.20833	-0.77766	5.712783	0.00017	0.00894
ENSG00000107679	PLEKHA1	27.49944382	30.25637065	24.50293197	13.18647209	14.20685761	16.89778	0.892773	4.473054	0.00017	0.00894
ENSG00000090316	MAEA	60.4987764	57.7112255	50.71537082	32.02428937	42.62057284	25.34667	0.772613	5.519807	0.00018	0.00894
ENSG00000161011	SQSTM1	235.1202446	217.9579293	169.8110169	130.9228301	152.4008362	129.3736	0.598513	7.441254	0.00018	0.00933
ENSG00000188846	RPL14	183.3296255	158.5657943	188.045757	230.7632616	277.6794897	252.4105	-0.5187	7.754789	0.00018	0.00933

ENSG00000153179	RASSF3	38.49922135	49.3066781	41.02816516	27.31483505	25.18488395	22.70639	0.767534	5.132814	0.00019	0.00941
ENSG00000248448	COX5BP1	558.6970336	464.4913198	663.2886701	860.8882494	781.3771688	823.7666	-0.54858	9.436975	0.00019	0.00942
ENSG00000114023	FAM162A	59.58212827	45.94485914	55.84389147	81.00261428	79.42924939	87.65722	-0.61623	6.115113	0.00019	0.00942
ENSG00000231586	RPS23P9	1.374972191	0.56030316	1.709506882	7.064181478	3.228831276	8.976944	-2.36164	2.307712	0.00019	0.00942
ENSG00000175334	BANF1	2.749944382	2.241212641	4.558685018	9.418908637	10.97802634	7.920833	-1.55188	2.864727	0.00019	0.00951
ENSG00000213923	CSNK1E	0.458324064	2.801515801	2.279342509	4.709454318	10.33226008	8.448889	-2.07917	2.512581	0.00019	0.00955
ENSG00000230807	AC099535.4	1.833296255	2.801515801	3.419013763	8.006072341	7.103428807	10.03306	-1.6581	2.714522	0.00019	0.00955
ENSG00000255262	ELOBP2	1.833296255	2.241212641	0.569835627	6.593236046	4.520363787	8.976944	-2.06656	2.384456	0.0002	0.00955
ENSG00000133639	BTG1	70.5819058	64.99516659	80.34682343	96.0728681	121.404056	110.3636	-0.59803	6.51469	0.0002	0.00955
ENSG00000198795	ZNF521	19.24961067	28.01515801	21.08391821	39.08847084	39.39174157	39.07611	-0.78955	4.996745	0.0002	0.00963
ENSG00000134201	GSTM5	119.1642565	108.1385099	153.8556193	86.18301403	80.07501565	81.32055	0.618749	6.726466	0.0002	0.00972
ENSG00000248610	HSPA8P4	76.08179457	93.57062776	83.7658372	64.51952416	48.43246914	46.46889	0.656839	6.128763	0.0002	0.00975
ENSG00000104388	RAB2A	159.0384501	152.4024596	152.1461125	195.9132996	249.9115408	221.2553	-0.52079	7.564174	0.0002	0.00975
ENSG00000240156	COX6CP6	243.3700778	189.3824682	205.1408258	285.3929317	317.7169976	309.9686	-0.51384	8.019575	0.00021	0.00977
ENSG00000129521	EGLN3	72.41520206	79.56304875	88.89435784	28.25672591	65.22239178	32.73944	0.9493	5.952144	0.00021	0.00977
ENSG00000106244	PDAP1	42.16581386	34.73879593	35.89964451	59.33912441	56.1816642	61.7825	-0.64686	5.627829	0.00021	0.00978
ENSG00000072954	TMEM38A	148.4969966	159.6864007	148.1572631	88.06679575	124.6328873	76.04	0.667785	6.966839	0.00021	0.00978
ENSG00000273654	CTB-52I2.4	247.9533184	245.4127842	202.8614833	165.3018466	172.4195901	139.4067	0.547499	7.620093	0.00021	0.00984
ENSG00000178573	MAF	15.58301816	15.68848849	15.38556193	22.60538073	30.351014	38.02	-0.95388	4.576431	0.00021	0.00984
ENSG00000011114	BTBD7	42.16581386	39.78152438	33.620302	63.5776333	60.05626174	58.08611	-0.64799	5.661723	0.00021	0.00985
ENSG00000218363	SLC25A20P1	8.249833146	7.283941083	7.407863154	1.412836296	3.874597531	1.584167	1.796402	2.591118	0.00021	0.00985
ENSG00000160803	UBQLN4	38.04089728	45.94485914	38.74882265	23.07632616	18.08145515	28.515	0.800021	5.054556	0.00022	0.00985
ENSG00000100234	TIMP3	54.08223951	41.46243386	59.83274086	72.05465107	82.01231441	95.05	-0.67749	6.095242	0.00022	0.00985
ENSG00000143420	ENSA	50.87397106	38.66091806	36.46948014	29.66956221	20.66452017	18.48194	0.865231	5.080738	0.00022	0.00985
ENSG00000174437	ATP2A2	16039.05061	17455.68465	15733.7315	12355.72435	12590.50468	12658.02	0.388595	13.8211	0.00022	0.01008
ENSG00000178035	IMPDH2	60.95710046	50.42728442	59.83274086	96.54381353	83.30384692	80.7925	-0.60645	6.191623	0.00022	0.01014
ENSG00000213585	VDAC1	319.9101964	345.7070499	304.2922249	169.5403555	258.3065021	214.9186	0.597608	8.075172	0.00022	0.01014
ENSG00000131165	CHMP1A	40.3325176	33.61818961	34.75997326	21.66348986	16.14415638	23.7625	0.808906	4.890333	0.00023	0.01016
ENSG00000146535	GNA12	48.12402668	67.79668239	52.99471333	38.14657998	32.28831276	31.15528	0.721484	5.52879	0.00023	0.01032
ENSG00000223904	HMGB1P12	0	0	1.139671254	1.883781727	4.520363787	6.864722	-3.40546	1.755685	0.00023	0.01032
ENSG00000248522	SBF1P1	2.291620318	0.56030316	1.139671254	4.238508887	5.166130042	10.56111	-2.21216	2.336662	0.00025	0.01109
ENSG00000232573	RPL3P4	65.5403411	44.26394966	67.81043964	101.2532678	79.42924939	107.1953	-0.69788	6.300062	0.00025	0.01114
ENSG00000198612	COPS8	53.62391545	53.22880022	45.58685018	27.31483505	32.28831276	34.85167	0.698039	5.401748	0.00025	0.01114
ENSG00000215030	RPL13P12	117.3309603	88.52789932	118.5258105	150.2315928	154.338135	184.8194	-0.59142	7.094568	0.00025	0.01114
ENSG00000227615	RP11-864N7.2	22.45787912	20.17091377	20.51408258	39.08847084	31.64254651	36.96389	-0.77287	4.887752	0.00025	0.01114
ENSG00000214022	REPIN1	9.624805337	13.44727585	8.547534408	5.18039975	3.874597531	1.584167	1.535216	3.025473	0.00026	0.01133
ENSG00000232888	RPS11P5	25.2078235	28.57546117	33.05046638	36.73374368	55.53589795	64.95083	-0.85425	5.372918	0.00026	0.01133
ENSG00000249921	CTC-329H14.1	18.33296255	18.49000429	14.81572631	32.02428937	29.70524774	28.515	-0.80053	4.626916	0.00026	0.01133
ENSG00000213442	RPL18AP3	18.79128661	7.844244243	17.66490444	22.60538073	35.51714404	39.60416	-1.11954	4.618958	0.00027	0.01143
ENSG00000132681	ATP1A4	81.58168333	98.6133562	89.46419347	72.99654194	33.57984527	42.7725	0.835178	6.15389	0.00027	0.01156
ENSG00000151148	UBE3B	54.54056357	47.06546546	41.02816516	32.4952348	28.41371523	23.7625	0.7531	5.291007	0.00027	0.01156
ENSG00000152137	HSPB8	334.5765665	280.7118833	276.3702792	216.6348986	216.9774618	203.3014	0.487262	8.000114	0.00027	0.01156
ENSG00000229758	DYNLT3P2	1.374972191	2.801515801	3.419013763	0	0	0	5.252652	1.205293	0.00027	0.01156
ENSG00000151623	NR3C2	21.54123099	20.73121693	21.08391821	44.73981602	35.51714404	30.62722	-0.81163	4.913941	0.00027	0.01156
ENSG00000185164	NOMO2	3.666592509	9.525153724	11.96654817	0.941890864	1.29153251	3.168333	2.156942	2.597231	0.00028	0.0116
ENSG00000165312	OTUD1	28.87441601	20.73121693	18.23474007	13.65741752	9.686493828	8.976944	1.062291	4.17052	0.00028	0.0116
ENSG00000121691	CAT	137.038895	146.2391248	226.224744	105.9627222	108.4887309	99.8025	0.694788	7.110786	0.00028	0.01179
ENSG00000123131	PRDX4	14.20804597	15.68848849	12.5363838	24.96010789	22.60181893	32.21139	-0.91267	4.422113	0.00029	0.01205
ENSG00000197852	FAM212B	8.249833146	8.404547404	5.128520645	2.354727159	1.937298766	2.112222	1.734088	2.544422	0.00029	0.01205
ENSG00000196576	PLXNB2	94.41475711	93.57062776	90.60386472	59.81006984	63.28509301	67.59111	0.548487	6.309969	0.00029	0.01205
ENSG00000226144	RPS27AP3	13.74972191	7.844244243	17.66490444	23.54727159	23.89335144	34.32361	-1.05533	4.405989	0.00029	0.01212
ENSG00000168283	BMI1	32.54100852	32.49758329	30.20128824	51.33305207	49.0782354	49.63722	-0.65463	5.38961	0.0003	0.01229
ENSG00000145244	CORIN	57.74883202	63.87456027	62.11208336	37.20468912	39.39174157	42.7725	0.620294	5.688938	0.0003	0.01229
ENSG00000131069	ACSS2	53.62391545	59.95243815	60.40257648	37.20468912	36.80867655	38.54805	0.622779	5.609724	0.00031	0.01245
ENSG00000111678	C12orf57	72.41520206	54.9097097	62.68191899	90.42152291	87.17844446	123.565	-0.66141	6.374979	0.00031	0.01245
ENSG00000218175	AC016739.2	161.7883945	100.8545688	195.4536201	239.2402794	245.391177	274.0608	-0.72726	7.670851	0.00031	0.01251
ENSG00000159461	AMFR	74.70682237	86.28668668	60.40257648	41.91414343	41.97480659	53.86166	0.683061	5.931589	0.00032	0.01288
ENSG00000152661	GJA1	395.5336669	417.9861575	403.4436241	541.1163012	519.1960692	556.5705	-0.41062	8.886697	0.00032	0.01295
ENSG00000003137	CYP26B1	7.333185018	14.56788217	9.117370035	2.354727159	4.520363787	3.168333	1.631924	2.967617	0.00033	0.01304
ENSG00000105221	AKT2	186.5378939	184.9000429	174.9395375	130.4518846	137.5482124	125.6772	0.474951	7.301898	0.00033	0.01316
ENSG00000237793	RPL18AP16	3.208268446	3.922122122	7.407863154	10.83174493	13.56109136	12.14528	-1.33751	3.237892	0.00033	0.01322
ENSG00000159692	CTBP1	161.3300704	143.9979122	158.4143044	201.0936994	224.7266568	219.143	-0.47301	7.537011	0.00033	0.01323
ENSG00000204310	AGPAT1	17.41631442	15.12818533	17.09506882	7.535126909	9.686493828	6.864722	1.059776	3.740904	0.00034	0.01336
ENSG00000236552	RPL13AP5	112.7477197	87.96759616	107.6989335	125.7424303	169.1907589	180.0669	-0.61777	7.038086	0.00034	0.01336
ENSG00000184602	SNN	6.416536891	4.482425282	5.128520645	0.941890864	1.29153251	1.584167	2.046906	2.144823	0.00034	0.01336
ENSG00000112996	MRPS30	18.79128661	19.61061061	20.51408258	37.20468912	34.22561153	29.57111	-0.78113	4.790243	0.00035	0.01354
ENSG00000241656	UBA52P7	71.04022986	68.91728871	76.35797404	96.54381353	109.1344971	108.2514	-0.53479	6.480318	0.00035	0.01357
ENSG00000205105	COX17P1	82.95665552	74.52032031	76.35797404	106.4336676	113.0090947	117.2283	-0.52167	6.5863	0.00035	0.01357
ENSG00000237528	RP11-234P3.4	78.37341488	56.59061918	108.8386048	116.7944671	149.172005	143.103	-0.74512	6.775705	0.00035	0.01363
ENSG00000136560	TANK	24.74949944	23.53273273	23.93309634	9.418908637	14.20685761	14.78555	0.927993	4.285311	0.00036	0.01394
ENSG00000101474	APMAP	16.04134223	22.97242957	24.50293197	12.24458123	10.33226008	7.920833	1.033683	4.060899	0.00037	0.01404
ENSG00000167720	SRR	5.499888764	6.723637923	6.268191899	1.883781727	1.29153251	2.112222	1.732393	2.335671	0.00037	0.01412
ENSG00000238181	AHCYP2	2.749944382	4.482425282	4.558685018	0.470945432	1.29153251	0	2.694595	1.714978	0.00037	0.01421
ENSG00000196628	TCF4	107.706155	110.3797226	127.6431805	169.06941	152.4008362	166.8655	-0.50227	7.129694	0.00037	0.01421
ENSG00000109819	PPARGC1A	140.2471635	142.3170027	131.6320299	204.8612629	170.4822914	211.2222	-0.50439	7.391941	0.00038	0.01429

ENSG00000166411	IDH3A	604.987764	697.5774345	584.0815179	416.7867072	514.6757054	384.9525	0.520608	9.062839	0.00038	0.01445
ENSG00000161016	RPL8	456.0324433	387.1694837	444.4717892	624.4736426	526.299498	640.0033	-0.47627	9.006377	0.00038	0.01448
ENSG00000004779	NDUFAB1	514.6979235	438.1570713	524.8186126	594.8040804	775.5652725	732.9411	-0.50802	9.223084	0.00039	0.01465
ENSG00000130347	RTN4IP1	60.04045234	54.34940654	54.70422021	37.67563455	34.87137778	38.02	0.611384	5.579301	0.0004	0.01485
ENSG00000145349	CAMK2D	114.5810159	113.1812384	91.74353598	147.8768656	158.8584988	150.4958	-0.51275	7.027323	0.0004	0.01492
ENSG00000244005	NFS1	46.29073043	53.22880022	46.72652143	29.66956221	32.93407902	30.09917	0.659582	5.353189	0.00041	0.01525
ENSG00000214318	ATP5G1P6	129.70571	112.060632	197.163127	231.234207	209.2282667	277.2292	-0.7117	7.598138	0.00041	0.01527
ENSG00000113441	LNPEP	53.62391545	49.86698126	51.85504207	78.64788712	72.32582059	78.68027	-0.56454	6.027771	0.00042	0.01532
ENSG00000102225	CDK16	170.4965517	165.8497354	160.1238112	114.4397399	119.4667572	124.6211	0.470991	7.166341	0.00042	0.01544
ENSG00000171823	FBXL14	15.58301816	14.56788217	18.23474007	8.947963205	5.811896297	7.920833	1.057328	3.699591	0.00042	0.01547
ENSG00000231500	RPS18	287.827512	241.4906621	319.6777869	363.5698734	395.8547145	493.2039	-0.56088	8.456284	0.00042	0.01549
ENSG00000166908	PIP4K2C	28.87441601	36.98000858	36.46948014	19.30876271	18.08145515	21.65028	0.778792	4.804486	0.00043	0.01553
ENSG00000240463	RPS19P3	178.2880608	104.776691	129.3526874	200.622754	204.7079029	250.8264	-0.6658	7.486032	0.00043	0.01553
ENSG00000226617	RPL21P110	20.62458286	13.44727585	22.22358946	33.90807109	31.64254651	32.73944	-0.79928	4.745766	0.00043	0.01553
ENSG00000174572	RPL10P2	15.58301816	12.88697269	13.67605505	26.84388961	26.47641646	22.70639	-0.83927	4.373972	0.00045	0.01626
ENSG00000120833	SOCS2	14.66637004	18.49000429	13.67605505	27.78578048	29.70524774	25.34667	-0.81954	4.496404	0.00045	0.01633
ENSG00000179010	MRFAP1	79.29006301	64.43486343	86.61501533	104.5498859	131.0905498	109.8356	-0.57897	6.596859	0.00046	0.01644
ENSG00000226525	RPS7P10	98.08134962	77.32183611	73.50879591	128.5681029	117.5294585	119.3406	-0.54914	6.694313	0.00047	0.01668
ENSG00000204434	POTEKP	95.7897293	89.64850564	104.8497554	51.33305207	69.74275556	71.2875	0.600135	6.347775	0.00047	0.01668
ENSG00000175054	ATR	33.91598071	30.81667381	27.35211011	44.73981602	48.43246914	53.33361	-0.66036	5.350165	0.00047	0.01672
ENSG00000149428	HYOU1	36.66592509	42.58304018	41.59800079	28.25672591	20.66452017	23.7625	0.71276	5.062221	0.00048	0.01685
ENSG00000214121	PRDX1P1	64.16536891	86.28668668	71.2294534	31.55334393	58.76472923	41.18833	0.766593	5.898652	0.00048	0.01687
ENSG00000213569	RP13-383K5.4	1.833296255	1.680909481	2.279342509	6.593236046	7.103428807	5.808611	-1.71635	2.387865	0.00048	0.01691
ENSG00000116754	SRSF11	47.66570262	39.78152438	21.65375383	61.69385157	60.05626174	69.17527	-0.79565	5.677262	0.00048	0.017
ENSG00000062282	DGAT2	296.5356692	270.6264264	264.403731	206.7450446	209.2282667	200.6611	0.432872	7.922167	0.00052	0.01805
ENSG00000101444	AHCY	24.74949944	26.33424853	43.87734329	15.07025382	19.37298766	13.72944	0.979936	4.630443	0.00052	0.01814
ENSG00000137692	DCUN1D5	85.7065999	82.92486772	60.97241211	104.5498859	123.3413547	115.6442	-0.57351	6.592129	0.00053	0.01843
ENSG00000140983	RHOT2	48.12402668	39.22122122	50.14553519	28.25672591	30.99678025	26.40278	0.688627	5.259362	0.00054	0.0187
ENSG00000005882	PDK2	303.8688542	285.7546117	339.6220338	182.7268276	240.2250469	230.7603	0.509943	8.048735	0.00054	0.0187
ENSG00000131779	PEX11B	25.2078235	17.36939797	23.36326072	9.889854069	14.85262387	8.448889	1.019057	4.138353	0.00055	0.01877
ENSG00000234782	TPT1P9	149.8719688	118.2239668	151.0064412	204.8612629	225.3724231	177.9547	-0.53394	7.427363	0.00055	0.01891
ENSG00000241590	RPL17P37	21.08290693	10.08545688	14.81572631	23.54727159	32.28831276	34.32361	-0.94155	4.566173	0.00055	0.01895
ENSG00000108669	CYTH1	43.08246198	64.43486343	46.72652143	31.0823985	27.76794897	33.79555	0.723754	5.399676	0.00056	0.01899
ENSG00000188807	TMEM201	21.54123099	17.36939797	23.93309634	9.418908637	9.686493828	13.20139	0.954963	4.08602	0.00057	0.01946
ENSG00000165416	SUGT1	38.04089728	34.17849277	30.20128824	62.63574243	48.43246914	50.69333	-0.65995	5.499066	0.00058	0.01974
ENSG00000083845	RPS5	369.8675194	282.3927928	356.147267	488.8413582	422.3311309	522.2469	-0.50739	8.673022	0.00059	0.01999
ENSG00000100897	DCAF11	121.9142009	113.7415415	109.4084404	72.99654194	92.99034075	71.81555	0.546243	6.617548	0.00061	0.02046
ENSG00000116016	EPAS1	170.0382276	165.8497354	196.0234558	225.5828619	238.2877482	305.7442	-0.53371	7.767393	0.00062	0.02065
ENSG00000118729	CASQ2	225.4954393	236.4479336	177.7887157	164.3599557	144.0058749	132.0139	0.537849	7.502139	0.00062	0.02065
ENSG00000235605	RP5-827C21.1	68.74860955	32.49758329	43.30750767	74.40937823	74.26311935	124.0931	-0.90783	6.145608	0.00062	0.0208
ENSG00000109472	CPE	249.7866147	192.7442871	201.1519764	145.9930839	165.3161613	138.3505	0.522283	7.519153	0.00063	0.02084
ENSG00000105372	RPS19	267.6612532	189.3824682	250.1578403	297.6375129	350.6510766	404.4905	-0.57194	8.201172	0.00063	0.02084
ENSG00000197296	FITM2	43.99911011	54.9097097	57.55339835	32.96618023	25.83065021	37.49194	0.682505	5.433949	0.00063	0.02097
ENSG00000107371	EXOSC3	5.0415647	6.723637923	2.279342509	12.24458123	12.26955885	10.03306	-1.27544	3.190775	0.00064	0.02107
ENSG00000217128	FNIP1	49.49899887	47.06546546	42.73767204	69.22897848	61.34779425	80.26444	-0.59838	5.894559	0.00064	0.02107
ENSG00000144191	CNGA3	3.666592509	3.361818961	4.558685018	0.941890864	0.645766255	0.528056	2.317368	1.750624	0.00065	0.02114
ENSG00000100403	ZC3H7B	73.33185018	101.9751752	83.7658372	46.15265232	48.43246914	68.64722	0.661438	6.158185	0.00065	0.02114
ENSG00000185624	P4HB	80.20671114	90.2088088	73.50879591	50.86210664	63.93085927	46.99694	0.600702	6.100623	0.00065	0.02116
ENSG00000107863	ARHGAP21	46.29073043	34.73879593	42.16783641	70.64181478	49.72400165	78.68027	-0.6949	5.780996	0.00065	0.02116
ENSG00000070159	PTPN3	49.04067481	63.31425711	43.87734329	33.90807109	27.12218272	34.85167	0.692543	5.432847	0.00068	0.02194
ENSG00000122550	KLHL7	70.12358174	71.71880451	59.83274086	39.08847084	44.55787161	49.63722	0.602246	5.831775	0.00068	0.02203
ENSG00000215895	RP11-334L9.1	75.16514644	91.88971828	74.64846716	45.68170689	60.70202799	53.86166	0.599651	6.086457	0.00068	0.02203
ENSG00000056586	RC3H2	120.0809047	118.78427	106.5592623	171.8950826	145.2974074	164.2253	-0.4805	7.118594	0.00069	0.02207
ENSG00000015413	DPEP1	13.29139785	7.844244243	13.10621943	4.709454318	5.166130042	4.224444	1.285035	3.200321	0.0007	0.02241
ENSG00000077312	SNRPA	43.08246198	22.41212641	41.02816516	53.2168338	61.34779425	64.95083	-0.742	5.605419	0.0007	0.02248
ENSG00000196177	ACADSB	22.91620318	24.65333905	26.78227448	12.71552666	14.20685761	15.31361	0.812691	4.356392	0.00071	0.02262
ENSG00000228399	RP4-575N6.2	41.70748979	42.02273702	33.05046638	52.74588837	66.51392429	61.25444	-0.61625	5.657028	0.00071	0.02264
ENSG00000177303	CASKIN2	39.87419354	38.66091806	47.29635706	27.78578048	24.5391177	25.87472	0.67603	5.13441	0.00072	0.02271
ENSG00000084754	HADHA	525.2393769	528.3658801	490.0586394	397.9488899	401.6666107	377.5597	0.391465	8.828486	0.00072	0.02271
ENSG00000136938	ANP32B	33.91598071	27.45485485	35.32980889	49.92021578	48.43246914	51.74944	-0.6322	5.398491	0.00072	0.02282
ENSG00000134324	LPIN1	40.3325176	61.63334763	49.00586394	32.4952348	27.76794897	31.68333	0.700813	5.376177	0.00074	0.02307
ENSG00000120053	GOT1	463.3656283	427.5113113	469.5445568	307.0564216	382.2936231	294.1269	0.470549	8.613393	0.00074	0.02307
ENSG00000066933	MYO9A	23.83285131	17.36939797	16.52523319	40.03036171	31.64254651	29.04305	-0.794	4.786275	0.00074	0.02307
ENSG00000224059	HSPA8P16	9.166481273	8.964850564	11.96654817	18.36687184	18.08145515	20.06611	-0.91426	3.948878	0.00074	0.0231
ENSG00000103966	EHD4	216.7872821	231.9655083	221.0962234	152.1153745	165.3161613	176.3705	0.440372	7.607405	0.00074	0.02316
ENSG00000165795	NDRG2	1205.392287	987.8144715	1000.631361	751.1579638	854.9945219	738.2216	0.447207	9.852089	0.00075	0.02319
ENSG00000169116	PARM1	24.29117537	20.73121693	18.8045757	24.48916246	50.36976791	47.525	-0.91865	4.98976	0.00077	0.0237
ENSG00000100226	GTPBP1	34.83262884	42.58304018	41.59800079	25.90199875	22.60181893	25.34667	0.673655	5.05428	0.00077	0.02375
ENSG00000213700	RPL17P50	12.37474972	9.525153724	16.52523319	21.19254443	25.18488395	24.81861	-0.88351	4.263785	0.00079	0.02416
ENSG00000136238	RAC1	75.16514644	85.16608036	97.44189225	103.607995	141.4228099	140.4628	-0.5796	6.75383	0.00079	0.02421
ENSG00000139914	FITM1	85.24827584	56.59061918	80.91665906	106.4336676	113.0090947	113.0039	-0.57194	6.547945	0.0008	0.02452
ENSG00000184983	NDUFA6	336.8681868	262.221879	378.3708565	427.6184521	525.6537318	458.8803	-0.52944	8.640495	0.0008	0.02452
ENSG00000217239	RP1-182O16.1	22.45787912	6.163334763	17.66490444	27.31483505	31.64254651	42.7725	-1.11588	4.686643	0.00081	0.02452
ENSG00000236801	RPL24P8	78.83173895	51.54789074	79.20715218	104.5498859	94.92763952	126.2053	-0.63454	6.497629	0.00081	0.02452
ENSG00000159640	ACE	13.74972191	26.33424853	26.21243885	11.30269036	7.749195063	11.61722	1.075254	4.100836	0.00083	0.02506

ENSG00000198258	UBL5	33.91598071	21.29152009	49.00586394	57.92628812	52.95283293	78.15222	-0.86195	5.641579	0.00083	0.02507
ENSG00000117153	KLHL12	27.95776788	26.89455169	27.35211011	19.77970814	14.85262387	12.14528	0.798201	4.503388	0.00084	0.02507
ENSG00000112531	QKI	617.3625137	616.3334763	567.5562847	803.9038522	725.8412709	853.3377	-0.40416	9.44815	0.00084	0.02507
ENSG00000176171	BNIP3	60.4987764	59.39213499	54.70422021	32.96618023	45.84940412	35.90778	0.621277	5.621752	0.00084	0.02507
ENSG00000232472	EEF1B2P3	43.54078605	31.37697697	23.36326072	48.97832491	52.30706667	64.42277	-0.73839	5.496194	0.00087	0.02586
ENSG00000132819	RBM38	49.49899887	52.1081939	60.40257648	34.37901652	38.74597531	32.73944	0.614981	5.512487	0.00088	0.02609
ENSG00000239559	RPL37P2	3.208268446	3.361818961	6.268191899	9.418908637	10.97802634	10.56111	-1.27342	3.047052	0.00088	0.02609
ENSG00000091428	RAPGEF4	38.04089728	41.46243386	37.03931577	24.01821702	27.12218272	22.17833	0.673823	5.031336	0.00088	0.02609
ENSG00000114853	ZBTB47	77.45676676	49.86698126	64.9612615	39.08847084	40.68327408	42.7725	0.656444	5.748075	0.00088	0.02609
ENSG00000152782	PANK1	44.91575824	57.7112255	48.43602831	32.96618023	34.87137778	29.04305	0.638934	5.404045	0.00089	0.02609
ENSG00000214745	RP11-54I5.1	21.08290693	11.76636636	18.8045757	8.947963205	9.686493828	2.640278	1.291448	3.735971	0.0009	0.02637
ENSG00000204228	HSD17B8	101.7479421	75.08062347	83.7658372	137.9870115	124.6328873	115.1161	-0.53155	6.748797	0.0009	0.02638
ENSG00000109171	SLAIN2	208.0791249	184.9000429	200.0123051	281.1544228	248.6200083	266.14	-0.4251	7.861824	0.00091	0.02665
ENSG00000164032	H2AFZ	127.8724138	143.9979122	101.4307416	182.7268276	193.7298766	162.6411	-0.52782	7.257496	0.00092	0.02669
ENSG00000125875	TBC1D20	21.99955505	40.9021307	27.35211011	19.77970814	13.56109136	12.67333	0.94667	4.571068	0.00093	0.02696
ENSG00000233839	RP11-389O22.4	6.416536891	3.922122122	7.407863154	10.3607995	21.31028642	12.14528	-1.26243	3.468568	0.00093	0.02696
ENSG00000243859	RPL5P17	16.95799035	15.12818533	16.52523319	22.1344353	28.41371523	39.07611	-0.87344	4.58517	0.00095	0.0275
ENSG00000198925	ATG9A	78.37341488	71.15850135	96.87205662	64.99046959	37.4544428	51.22139	0.665682	6.087217	0.00095	0.0275
ENSG00000087088	BAX	32.08268446	27.45485485	35.32980889	54.62967009	40.68327408	53.86166	-0.66146	5.386984	0.00095	0.0275
ENSG00000121898	CPXM2	38.95754541	32.49758329	37.03931577	17.42498098	23.89335144	24.81861	0.728509	4.916139	0.00096	0.02758
ENSG00000100266	PACSIN2	180.5796811	162.4879165	165.2523319	129.9809392	109.7802634	128.8455	0.460834	7.204017	0.00096	0.02761
ENSG00000082641	NFE2L1	776.4009638	782.1832117	671.2663688	562.779791	551.484382	580.8611	0.395654	9.356155	0.00099	0.02809
ENSG00000214199	EEF1A1P12	11.91642565	12.32666953	10.25704129	20.721599	23.89335144	18.48194	-0.85479	4.107077	0.00099	0.02809
ENSG00000126882	FAM78A	13.29139785	16.24879165	11.96654817	8.006072341	5.166130042	6.336666	1.053199	3.500002	0.00099	0.02809
ENSG00000140479	PCSK6	24.29117537	29.13576433	25.64260322	13.18647209	13.56109136	18.48194	0.797198	4.446098	0.00099	0.02809
ENSG00000144043	TEX261	10.0831294	8.404547404	15.38556193	5.651345182	1.937298766	5.280555	1.325772	3.158693	0.00099	0.02809
ENSG00000127314	RAP1B	42.62413792	33.61818961	25.0727676	45.68170689	55.53589795	68.64722	-0.73108	5.531302	0.001	0.0282
ENSG00000108861	DUSP3	19.24961067	24.09303589	19.37441132	14.12836296	8.394961318	10.56111	0.887103	4.098975	0.00102	0.02854
ENSG00000160392	C19orf47	29.79106414	25.21364221	26.21243885	14.12836296	14.85262387	18.48194	0.778832	4.498943	0.00102	0.02854
ENSG00000163584	RPL22L1	65.08201704	54.34940654	82.05633032	82.41545057	106.5514321	130.9578	-0.66559	6.455236	0.00102	0.02854
ENSG00000143363	PRUNE1	10.0831294	11.76636636	13.67605505	5.18039975	5.166130042	5.808611	1.113779	3.272757	0.00102	0.02854
ENSG00000243181	RP11-734J24.1	5.0415647	2.241212641	2.849178136	8.477017773	7.749195063	10.56111	-1.34999	2.858845	0.00103	0.02876
ENSG00000249754	NDUFB4P9	4.583240636	1.680909481	6.268191899	10.83174493	12.26955885	8.448889	-1.30526	3.060463	0.00104	0.02892
ENSG00000141756	FKBP10	23.37452725	26.33424853	21.65375383	16.01214468	11.62379259	12.14528	0.82215	4.299667	0.00107	0.02968
ENSG00000132313	MRPL35	2.749944382	4.482425282	4.558685018	11.30269036	10.97802634	7.392777	-1.34177	2.982116	0.00107	0.02973
ENSG00000267590	NDUFA3P1	85.24827584	83.48517088	116.2464679	165.3018466	113.6548609	153.6642	-0.60906	6.916431	0.00108	0.02976
ENSG00000198034	RPS4X	397.3669632	292.4782496	373.8121714	511.446739	461.7228725	499.5405	-0.46891	8.727552	0.00108	0.02976
ENSG00000217733	CCT7P1	20.62458286	14.56788217	13.67605505	8.006072341	10.33226008	4.7525	1.110222	3.717267	0.00109	0.02999
ENSG00000109501	WFS1	92.12313679	91.32941512	97.44189225	79.11883255	54.89013169	53.86166	0.569771	6.311032	0.00111	0.03039
ENSG00000277443	MARCKS	114.5810159	85.16608036	99.15139913	138.457957	125.9244198	184.2914	-0.58454	6.974895	0.00113	0.03079
ENSG00000138796	HADH	166.8299592	150.1612469	141.8890712	120.0910851	112.3633284	95.57805	0.485383	7.048596	0.00113	0.03079
ENSG00000196531	NACA	237.411865	176.4954955	240.4706347	310.823985	291.2405811	311.5528	-0.48086	8.035824	0.00114	0.03092
ENSG00000219470	RP3-337H4.6	154.4552094	105.3369941	157.2746331	209.0997717	189.855279	208.0539	-0.5406	7.424689	0.00115	0.03117
ENSG00000174748	RPL15	44.45743417	49.86698126	53.56454896	62.164797	74.90888561	83.96083	-0.58005	5.962319	0.00116	0.0312
ENSG00000092964	DPYSL2	51.33229513	62.75395395	66.10093275	76.29315996	83.94961318	121.9808	-0.65128	6.285017	0.00116	0.0312
ENSG00000108262	GIT1	64.16536891	62.19365079	64.9612615	44.73981602	41.32904033	45.41278	0.536919	5.780263	0.00116	0.0312
ENSG00000173221	GLRX	7.791509082	6.163334763	8.547534408	0.941890864	4.520363787	2.112222	1.643828	2.592895	0.00117	0.0312
ENSG00000179152	TCAIM	16.49966629	17.36939797	17.09506882	11.30269036	9.040727573	4.7525	1.005293	3.786151	0.00117	0.0312
ENSG00000259956	RBM15B	7.791509082	12.88697269	14.24589068	4.709454318	3.874597531	5.808611	1.233932	3.207183	0.00117	0.0312
ENSG00000166326	TRIM44	36.20760103	26.89455169	30.77112387	51.33305207	41.32904033	55.44583	-0.6563	5.376127	0.00117	0.0312
ENSG00000172346	CSDC2	17.41631442	19.05030745	25.0727676	9.418908637	12.9153251	10.56111	0.907968	4.062884	0.00118	0.03137
ENSG00000033627	ATP6V0A1	88.91486835	92.45002144	92.88320723	59.33912441	72.32582059	61.7825	0.509478	6.302838	0.00119	0.03162
ENSG00000227590	ATP5G1P5	114.5810159	82.92486772	119.0956461	152.1153745	138.8397449	170.0339	-0.54178	7.030397	0.00121	0.03216
ENSG00000168256	NKIRAS2	32.99933258	28.01515801	31.91079512	20.721599	20.66452017	14.2575	0.743836	4.694574	0.00122	0.03219
ENSG00000129084	PSMA1	19.24961067	12.88697269	10.25704129	19.30876271	34.87137778	29.57111	-0.94537	4.453247	0.00122	0.03219
ENSG00000136149	RPL13AP25	60.04045234	53.22880022	63.25175462	71.58370564	95.57340577	93.99388	-0.55793	6.205241	0.00122	0.03219
ENSG00000128524	ATP6V1F	16.49966629	15.12818533	22.22358946	24.96010789	30.99678025	38.54805	-0.8104	4.68052	0.00123	0.03219
ENSG00000170837	GPR27	5.0415647	5.042728442	7.977698781	0.941890864	1.937298766	2.640278	1.690864	2.312457	0.00127	0.03324
ENSG00000145495	44626	119.6225806	151.2818533	139.6097287	173.3079189	190.5010453	204.8855	-0.47202	7.358087	0.00128	0.03336
ENSG00000138029	HADHB	2090.874378	2188.544144	1928.893598	1393.998478	1778.440267	1418.357	0.436046	10.81444	0.00129	0.03354
ENSG00000089597	GANAB	43.99911011	51.54789074	47.29635706	34.84996196	29.70524774	29.04305	0.59853	5.34072	0.00129	0.03366
ENSG00000011105	TSPAN9	27.04111976	47.06546546	44.44717892	22.60538073	15.49839013	26.93083	0.841679	4.983159	0.00131	0.03386
ENSG00000132155	RAF1	147.5803485	131.1109395	110.5481117	100.7823224	82.01231441	88.71333	0.517923	6.800771	0.00131	0.03397
ENSG00000205544	TMEM256	41.24916573	34.17849277	74.07863154	76.76410539	78.13771688	104.0269	-0.79689	6.107981	0.00132	0.03398
ENSG00000115415	STAT1	16.04134223	20.73121693	17.09506882	10.83174493	9.040727573	8.976944	0.879172	3.894992	0.00132	0.03398
ENSG00000113583	C5orf15	13.29139785	12.88697269	23.36326072	31.55334393	34.22561153	24.29055	-0.86752	4.593633	0.00132	0.03398
ENSG00000125375	ATP5S	10.0831294	7.844244243	7.977698781	16.95403555	15.49839013	16.36972	-0.89987	3.759201	0.00133	0.03423
ENSG00000123009	NME2P1	8.249833146	5.042728442	11.39671254	15.07025382	22.60181893	14.78555	-1.06509	3.778602	0.00134	0.03427
ENSG00000071553	ATP6AP1	79.29006301	62.75395395	76.35797404	53.2168338	48.43246914	48.05305	0.544266	5.967484	0.00134	0.0343
ENSG00000145362	ANK2	137.9555432	158.5657943	149.2969343	227.4666436	169.8365251	234.4567	-0.50762	7.498126	0.00135	0.03432
ENSG00000230779	RP1-140J1.4	29.33274007	20.17091377	21.08391821	39.55941627	35.51714404	39.07611	-0.6813	4.997745	0.00136	0.03449
ENSG00000120658	ENOX1	1.374972191	1.680909481	2.849178136	0	0	0	4.908257	1.027579	0.00138	0.03488
ENSG00000243199	RP11-408P14.1	49.49899887	46.5051623	37.6091514	65.93236046	58.76472923	75.51194	-0.58132	5.82758	0.00139	0.03511
ENSG00000182899	RPL35A	334.5765665	289.1164307	364.1249658	408.7806348	432.0176247	543.8972	-0.48716	8.63087	0.00139	0.03515
ENSG00000182700	IGIP	33.45765665	25.21364221	22.79342509	40.97225257	41.97480659	46.46889	-0.65289	5.18002	0.0014	0.03519

ENSG00000132824	SERINC3	74.24849831	96.37214356	68.38027526	48.03643405	62.63932676	46.46889	0.611823	6.065594	0.00141	0.03547
ENSG00000087274	ADD1	82.49833146	137.2742743	114.5369611	77.70599625	69.74275556	71.81555	0.601067	6.542584	0.00142	0.03566
ENSG00000113580	NR3C1	64.16536891	90.2088088	60.97241211	108.3174493	102.6768346	104.0269	-0.55228	6.481745	0.00143	0.03586
ENSG00000068615	REEP1	3.666592509	7.283941083	5.698356272	14.12836296	10.97802634	11.08917	-1.15148	3.299077	0.00145	0.03611
ENSG00000138347	MYPN	61.41542453	77.88213927	98.01172788	55.10061553	49.72400165	49.63722	0.609846	6.050307	0.00145	0.03611
ENSG00000111540	RAB5B	52.70726732	81.80426139	50.14553519	30.61145307	38.74597531	43.30055	0.713638	5.658994	0.00146	0.03627
ENSG00000128591	FLNC	618.7374859	761.4519948	827.9711663	583.50139	386.8139869	536.5044	0.549136	9.277034	0.00146	0.03627
ENSG00000119711	ALDH6A1	69.20693361	134.4727585	79.20715218	67.34519675	51.01553416	46.46889	0.77094	6.241401	0.00147	0.0365
ENSG00000214975	PPIAP29	21.08290693	18.49000429	25.64260322	28.25672591	39.39174157	42.7725	-0.75197	4.913556	0.00151	0.03711
ENSG00000139644	TMBIM6	32.08268446	30.81667381	29.63145261	35.79185282	57.47319671	58.08611	-0.69661	5.373325	0.00151	0.03711
ENSG00000147573	TRIM55	24.29117537	28.01515801	30.20128824	14.59930839	18.7272214	15.84167	0.751296	4.519078	0.00151	0.03711
ENSG00000100324	TAB1	11.91642565	10.08545688	10.82687692	7.064181478	2.583065021	4.7525	1.127863	3.1831	0.00151	0.03716
ENSG00000140718	FTO	20.62458286	17.36939797	16.52523319	11.7736358	4.520363787	10.56111	0.979923	3.893508	0.00153	0.03741
ENSG00000130821	SLC6A8	119.1642565	112.6209352	107.6989335	91.36341378	69.74275556	80.26444	0.485784	6.61642	0.00153	0.03743
ENSG00000110958	PTGES3	142.9971079	115.9827542	157.8444687	179.901155	196.3129416	205.4136	-0.47921	7.386833	0.00154	0.03754
ENSG00000117592	PRDX6	133.8306266	128.8697269	141.8890712	74.88032366	100.7395358	107.7233	0.518493	6.853717	0.00154	0.03754
ENSG00000171735	CAMTA1	140.7054875	118.2239668	107.6989335	189.791009	142.7143424	198.0208	-0.53337	7.237021	0.00155	0.03767
ENSG00000186940	CHCHD2P9	5.499888764	5.042728442	1.709506882	17.89592641	7.749195063	8.976944	-1.48385	3.180262	0.00156	0.03788
ENSG00000238193	RP11-555H23.1	591.6963662	571.5092234	580.0926685	471.8873227	457.848275	425.6128	0.363161	9.015664	0.00157	0.03797
ENSG00000173692	PSMD1	186.0795698	182.0985271	166.9618388	118.6782488	140.1312774	136.7664	0.44015	7.287288	0.00157	0.03797
ENSG00000089818	NECAP1	5.0415647	8.404547404	5.128520645	2.354727159	1.937298766	1.584167	1.603712	2.361689	0.00158	0.03812
ENSG00000197063	MAFG	19.24961067	16.24879165	17.66490444	29.66956221	27.12218272	29.04305	-0.68733	4.599942	0.0016	0.03849
ENSG00000126561	STAT5A	17.87463848	20.73121693	20.51408258	12.71552666	9.040727573	10.56111	0.841377	4.032504	0.00161	0.03865
ENSG00000168906	MAT2A	180.121357	192.183984	139.039893	133.2775572	117.5294585	106.1392	0.517782	7.189536	0.00165	0.03916
ENSG00000181856	SLC2A4	330.909974	322.1743171	340.1918694	212.8673352	282.8456198	237.625	0.44113	8.173508	0.00165	0.03916
ENSG00000174429	ABRA	47.20737856	39.22122122	41.02816516	26.84388961	32.28831276	22.17833	0.663264	5.16604	0.00165	0.03916
ENSG00000149547	EI24	47.66570262	50.98758758	48.43602831	33.43712566	30.351014	34.85167	0.569007	5.395474	0.00165	0.03916
ENSG00000159792	PSKH1	9.624805337	18.49000429	17.66490444	5.651345182	7.103428807	7.920833	1.129575	3.587254	0.00166	0.03917
ENSG00000143365	RORC	31.16603633	39.78152438	22.79342509	16.01214468	21.31028642	15.84167	0.830496	4.674254	0.00166	0.03917
ENSG00000141458	NPC1	10.0831294	15.12818533	11.39671254	7.064181478	4.520363787	4.7525	1.117226	3.309949	0.00166	0.03917
ENSG00000142173	COL6A2	45.3740823	69.47759187	57.55339835	35.32090739	30.99678025	42.7725	0.647008	5.583544	0.00166	0.03917
ENSG00000096746	HNRNPH3	79.29006301	67.79668239	75.21830279	97.48570439	100.0937696	112.4758	-0.47699	6.488208	0.00167	0.03921
ENSG00000229037	RP11-272G22.3	7.791509082	10.64576004	10.25704129	2.354727159	4.520363787	4.7525	1.308081	2.949713	0.00167	0.03928
ENSG00000116667	C1orf21	22.45787912	15.12818533	15.95539756	31.0823985	34.87137778	25.34667	-0.7455	4.653359	0.00169	0.03957
ENSG00000168273	SMIM4	46.29073043	46.5051623	51.85504207	59.81006984	76.84618437	75.51194	-0.54762	5.914405	0.00169	0.03957
ENSG00000163171	CDC42EP3	20.1662588	20.73121693	22.79342509	9.889854069	16.14415638	8.976944	0.888488	4.122616	0.0017	0.03959
ENSG00000058272	PPP1R12A	80.6650352	90.76911196	71.79928903	104.5498859	114.9463934	120.9247	-0.48284	6.618099	0.00171	0.03959
ENSG00000197958	RPL12	100.3729699	91.88971828	87.75468659	112.0850128	136.9024461	143.103	-0.47976	6.819561	0.00171	0.03959
ENSG00000173457	PPP1R14B	22.45787912	19.05030745	17.66490444	26.37294418	41.97480659	33.2675	-0.75414	4.788795	0.00171	0.03959
ENSG00000137449	CPEB2	66.91531329	68.91728871	52.99471333	82.41545057	98.80223705	90.2975	-0.516	6.278876	0.00174	0.04014
ENSG00000232362	ATP5LP2	120.9975528	115.422451	174.3697019	177.0754824	203.4163704	222.8394	-0.55564	7.407983	0.00176	0.04058
ENSG00000164258	NDUFS4	246.5783462	219.0785357	267.8227448	318.3591119	304.1559062	369.6389	-0.43646	8.173266	0.00177	0.04066
ENSG00000107223	EDF1	119.6225806	113.7415415	116.8163036	153.9991562	169.1907589	147.8555	-0.42441	7.106486	0.00178	0.04095
ENSG00000220960	RP1-72A23.1	3.666592509	1.680909481	2.279342509	5.18039975	7.749195063	8.448889	-1.40766	2.549525	0.00178	0.04095
ENSG00000091073	DTX2	1.374972191	1.680909481	0.569835627	4.238508887	4.520363787	5.280555	-1.87783	1.996002	0.00183	0.04181
ENSG00000241932	RP11-14K2.1	17.87463848	13.44727585	16.52523319	25.90199875	21.95605268	35.37972	-0.79724	4.522529	0.00183	0.04181
ENSG00000175048	ZDHHC14	10.54145346	8.964850564	7.407863154	2.825672591	5.166130042	3.168333	1.312137	2.894302	0.00183	0.04182
ENSG00000131236	CAP1	42.62413792	45.94485914	47.29635706	24.96010789	32.28831276	32.21139	0.6091	5.268768	0.00185	0.04212
ENSG00000164068	RNF123	87.08157209	104.776691	128.7828517	79.58977798	59.41049548	75.51194	0.568532	6.496545	0.00187	0.04252
ENSG00000142208	AKT1	164.0800148	149.0406406	151.0064412	109.2593402	112.3633284	123.565	0.428613	7.088117	0.00189	0.0428
ENSG00000251306	NDUFB4P2	81.58168333	95.25153724	113.3972898	163.4180648	109.1344971	161.0569	-0.58717	6.928743	0.00191	0.04311
ENSG00000019144	PHLDB1	130.6223581	131.6712427	124.2241667	104.5498859	83.94961318	93.46583	0.449276	6.815895	0.00191	0.04311
ENSG00000144476	ACKR3	118.7059325	115.422451	107.6989335	66.87425132	96.21917203	77.62416	0.516313	6.615761	0.00194	0.04363
ENSG00000214263	RPSAP53	32.54100852	28.57546117	30.77112387	54.62967009	36.16291029	53.33361	-0.65778	5.343036	0.00195	0.04383
ENSG00000147471	PROSC	10.0831294	15.12818533	10.82687692	1.412836296	7.103428807	5.808611	1.373025	3.223763	0.00195	0.04383
ENSG00000121644	DESI2	12.37474972	7.844244243	4.558685018	20.721599	12.9153251	19.01	-1.06521	3.824317	0.00196	0.04395
ENSG00000134240	HMGCS2	12.83307378	10.08545688	68.38027526	10.83174493	9.686493828	3.696389	1.901704	4.321845	0.00198	0.04433
ENSG00000113328	CCNG1	345.1180199	459.4485914	352.1584176	277.8578048	264.1183984	299.9355	0.456739	8.384519	0.002	0.04468
ENSG00000166848	TERF2IP	9.166481273	10.08545688	10.25704129	2.354727159	5.166130042	5.280555	1.226932	3.013511	0.00201	0.04483
ENSG00000266472	MRPS21	26.12447163	29.13576433	32.48063075	37.20468912	55.53589795	45.94083	-0.65249	5.266151	0.00202	0.04486
ENSG00000179820	MYADM	8.249833146	10.08545688	10.25704129	5.18039975	2.583065021	4.224444	1.186617	2.977375	0.00204	0.04532
ENSG00000112339	HBS1L	57.29050796	56.03031602	60.97241211	41.91414343	37.4544428	41.18833	0.525063	5.652228	0.00205	0.04541
ENSG00000137824	RMDN3	9.166481273	10.64576004	12.5363838	2.825672591	7.103428807	4.224444	1.228295	3.123218	0.00206	0.04545
ENSG00000125037	EMC3	60.4987764	55.47001286	41.59800079	32.96618023	38.74597531	31.15528	0.627859	5.478101	0.00206	0.04545
ENSG00000144579	CTDSP1	85.7065999	95.8118404	109.978276	69.22897848	69.09698931	69.17527	0.485867	6.395458	0.00207	0.04545
ENSG00000122406	RPL5	398.2836113	305.9255255	347.5997326	491.6670308	461.7228725	451.4875	-0.41641	8.681551	0.00207	0.04546
ENSG00000176485	PLA2G16	16.95799035	14.56788217	22.79342509	31.0823985	34.87137778	25.34667	-0.74568	4.654307	0.00207	0.04546
ENSG00000183963	SMTN	152.6219132	124.9476047	132.7717011	185.0815547	175.6484214	191.6842	-0.4268	7.3362	0.00208	0.04546
ENSG00000177889	UBE2N	70.12358174	76.20122979	79.20715218	44.73981602	56.1816642	56.50194	0.522624	6.018048	0.00208	0.04548
ENSG00000204396	VWA7	7.333185018	6.163334763	17.66490444	4.709454318	1.937298766	3.168333	1.595133	2.980087	0.00209	0.04553
ENSG00000198881	ASB12	5.499888764	3.922122122	2.279342509	1.412836296	0	0.528056	2.376277	1.783639	0.00211	0.04579
ENSG00000116260	QSOX1	8.249833146	7.283941083	7.977698781	2.825672591	1.29153251	4.7525	1.348474	2.709482	0.00211	0.04579
ENSG00000115307	AUP1	108.6228031	104.2163878	102.5704129	135.1613389	131.0905498	170.5619	-0.47002	6.982464	0.00211	0.04579
ENSG00000139197	PEX5	36.20760103	24.09303589	38.74882265	16.48309011	25.18488395	14.78555	0.832112	4.752234	0.00213	0.046
ENSG00000081189	MEF2C	84.33162771	80.68365507	79.77698781	109.2593402	100.0937696	133.598	-0.48774	6.630424	0.00213	0.046

ENSG00000146677	AC004453.8	216.328958	133.3521521	190.3250995	231.234207	261.5353334	306.8003	-0.56347	7.809407	0.00214	0.04614
ENSG00000126432	PRDX5	188.3711902	145.6788217	147.5874274	236.4146068	211.8113317	211.7503	-0.45207	7.580959	0.00215	0.04625
ENSG00000170791	CHCHD7	15.1246941	12.88697269	19.37441132	22.1344353	32.93407902	26.93083	-0.77703	4.485252	0.00216	0.04636
ENSG00000120333	MRPS14	28.87441601	28.01515801	32.48063075	41.91414343	51.66130042	42.24444	-0.59609	5.263194	0.00217	0.04651
ENSG00000049283	EPN3	12.37474972	10.08545688	11.39671254	5.18039975	5.811896297	5.808611	1.016922	3.25609	0.00218	0.04666
ENSG00000100644	HIF1A	37.12424916	36.41970542	41.02816516	53.2168338	57.47319671	54.91778	-0.52966	5.574337	0.00221	0.04709
ENSG00000157184	CPT2	60.04045234	58.27152866	55.27405584	30.61145307	43.91210536	42.7725	0.578669	5.629583	0.00221	0.04709
ENSG00000254502	FNTAL1	17.41631442	14.00757901	14.24589068	9.889854069	7.103428807	6.864722	0.921887	3.676712	0.00222	0.0471
ENSG00000204899	MZT1	10.54145346	10.08545688	8.547534408	4.238508887	5.166130042	4.224444	1.109273	3.04099	0.00222	0.0471
ENSG00000171992	SYNPO	42.62413792	39.78152438	68.95011089	34.37901652	20.66452017	32.21139	0.774835	5.355175	0.00222	0.0471
ENSG00000122679	RAMP3	2.749944382	2.801515801	3.98884939	0	1.29153251	0.528056	2.405516	1.549346	0.00223	0.04718
ENSG00000197358	BNIP3P1	43.08246198	57.15092234	63.82159025	26.84388961	46.49517038	22.70639	0.784877	5.462181	0.00224	0.04718
ENSG00000196154	S100A4	11.91642565	8.404547404	11.96654817	17.42498098	20.01875391	20.06611	-0.81516	3.997487	0.00225	0.04732
ENSG00000112972	HMGCS1	23.83285131	39.78152438	27.92194573	17.89592641	20.66452017	13.20139	0.821212	4.633917	0.00227	0.04777
ENSG00000116750	UCHL5	25.2078235	17.92970113	21.08391821	32.4952348	33.57984527	35.90778	-0.65355	4.846604	0.00229	0.04809
ENSG00000234152	ELOBP1	3.208268446	4.482425282	2.849178136	8.006072341	10.33226008	7.392777	-1.26011	2.811037	0.00231	0.04829
ENSG00000131828	PDHA1	395.0753429	446.0013155	352.7282532	297.6375129	323.5288939	266.14	0.429188	8.442572	0.00232	0.04859
ENSG00000168334	XIRP1	27.04111976	67.79668239	43.30750767	31.0823985	12.9153251	23.23444	1.013546	5.142104	0.00234	0.0488
ENSG00000196735	HLA-DQA1	19.70793474	19.61061061	15.95539756	32.02428937	27.76794897	28.515	-0.67471	4.645685	0.00234	0.04881
ENSG00000248746	ACTN3	25.66614756	28.57546117	27.92194573	16.48309011	20.01875391	13.20139	0.733267	4.522845	0.00235	0.04888
ENSG00000188612	SUMO2	176.9130886	172.5733734	120.2353173	185.5525001	248.6200083	257.163	-0.55358	7.602867	0.00236	0.04896
ENSG00000106299	WASL	21.99955505	21.85182325	33.05046638	44.73981602	39.39174157	37.49194	-0.67249	5.091107	0.00237	0.04903
ENSG00000111196	MAGOHB	10.0831294	5.603031602	5.698356272	13.65741752	21.31028642	11.61722	-1.06851	3.616405	0.00239	0.04946
ENSG00000141562	NARF	11.45810159	15.68848849	8.547534408	3.296618023	8.394961318	3.696389	1.259524	3.248421	0.0024	0.04951
ENSG00000108829	LRRC59	16.49966629	15.12818533	21.08391821	9.418908637	12.26955885	5.280555	0.979562	3.836825	0.00243	0.04998

Supple Table 6 Cardiac DEs for HFD_Spp_3wks vs HFD_CTL

Ensembl ID	Gene symbol	HFD_Spp_3wk_1	HFD_Spp_3wk_2	HFD_Spp_3wk_3	HFD-CTL-1	HFD-CTL-2	HFD-CTL-3	logFC	logCPM	PValue	FDR
ENSG00000133112	TPT1	407.0493785	374.4958403	350.8322453	688.7116624	660.745259	688.788136	-0.84802723	9.047563735	1.74E-10	1.98E-06
ENSG00000154518	ATP5G3	4607.03606	4273.922551	4471.563339	6898.869383	7460.4378	7476.17761	-0.7095417	12.51799352	9.72E-09	5.35E-05
ENSG00000110717	NDUFS8	143.0444795	140.5481991	147.5559149	251.9791475	241.254772	250.182925	-0.78664641	7.618527255	1.41E-08	5.35E-05
ENSG00000112695	COX7A2	17.06495545	14.81818073	14.44603363	35.72838658	33.7374747	46.5821763	-1.32550506	4.800494362	2.99E-08	7.59E-05
ENSG00000231739	GAPDHP59	144.0483004	163.8980596	164.0656677	258.5606924	267.990129	299.905472	-0.8075116	7.762478344	3.34E-08	7.59E-05
ENSG00000172115	CYCS	78.79994133	76.33608255	94.41514838	155.1364154	145.134797	150.214434	-0.85461396	6.875567645	6.83E-08	0.000111
ENSG00000217027	TPT1P4	64.74644861	61.06886604	76.35760634	108.5954908	150.227246	141.84011	-0.98412765	6.657578455	6.84E-08	0.000111
ENSG00000248448	COX5BP1	531.5231711	500.2258586	459.1774976	859.3617194	770.232913	816.496574	-0.71451691	9.359733142	9.44E-08	0.000132
ENSG00000214318	ATP5G1P6	125.4776136	140.9972348	126.4027943	230.8241817	206.244185	274.782501	-0.85779314	7.531112592	1.05E-07	0.000132
ENSG00000276293	PIP4K2B	21.58214954	23.34986055	21.66905045	8.461986296	6.36556127	9.42111432	1.43487301	4.036802129	1.53E-07	0.000174
ENSG00000179094	PER1	57.71970225	68.25343852	61.91157271	34.78816588	28.6450257	33.4972953	0.9472974	5.609493779	4.51E-07	0.000466
ENSG00000136859	ANGPTL2	66.25217997	83.96969081	63.45936202	36.66860728	32.4643625	39.254643	0.97632847	5.783438559	6.07E-07	0.000574
ENSG00000162413	KLHL21	40.15283635	41.31129173	34.05136499	19.74463469	15.9139032	18.3188334	1.08700754	4.885974395	8.20E-07	0.000717
ENSG00000182606	TRAK1	178.1782113	193.9834568	196.5692433	123.1689116	107.577985	111.483186	0.72994804	7.25890199	9.20E-07	0.000746
ENSG00000135821	GLUL	221.8444208	258.6446091	235.7799061	135.3917807	146.407909	154.401596	0.71681261	7.595248337	1.24E-06	0.000867
ENSG00000185641	CTD-2287O16.1	182.1934949	212.8429596	175.4161227	298.0499618	300.454492	396.733592	-0.80218209	8.032036463	1.43E-06	0.000867
ENSG00000102858	MGRN1	84.82286678	99.23690732	105.2496736	55.94313162	49.6513779	56.5266859	0.83093545	6.258430109	1.44E-06	0.000867
ENSG00000168079	SCARA5	6.524835906	8.980715594	10.31859545	1.410331049	1.90966838	1.57018572	2.37623531	2.646095812	1.44E-06	0.000867
ENSG00000109906	ZBTB16	54.70823952	135.6088055	148.0718447	46.54092463	40.7395921	37.161062	1.44078281	6.297463684	1.45E-06	0.000867
ENSG00000115593	SMYD1	275.5488394	254.6032871	289.9525322	179.1120433	174.416379	149.691039	0.70398992	7.793063233	1.76E-06	0.000998
ENSG00000173915	USMG5	202.7718236	205.2093513	182.6391395	283.9466513	336.101635	333.926163	-0.68978938	8.011821542	2.13E-06	0.001143
ENSG00000213862	CTD-2270N23.1	148.5654945	145.9366284	130.5302325	217.1909816	227.250537	239.191625	-0.68448242	7.535616954	2.21E-06	0.001143
ENSG00000131389	SLC6A6	59.72734407	64.2121165	68.61865975	40.42949008	28.6450257	32.9739001	0.90212965	5.656717124	2.50E-06	0.001235
ENSG00000266563	EIF1P5	43.66620953	44.45454219	43.33810089	64.40511792	86.5716332	108.342815	-0.9760091	6.039314834	3.04E-06	0.001438
ENSG00000229822	RP5-1174J21.2	47.68149316	49.39393577	53.65669635	80.38886981	85.298521	99.4450956	-0.81432933	6.1307776	3.22E-06	0.001463
ENSG00000146535	GNA12	65.24835906	54.33332935	72.23016816	38.07893833	31.8278063	30.8803191	0.91819853	5.64404465	3.50E-06	0.001528
ENSG00000232734	ATP5G1P7	77.29420997	96.54269264	82.03283384	138.2124428	133.04023	167.486477	-0.77668542	6.865621444	4.32E-06	0.001818
ENSG00000237528	RP11-234P3.4	73.78083679	88.90908439	73.77795747	116.5873667	147.044465	141.84011	-0.77213011	6.750294831	4.86E-06	0.001973
ENSG00000224004	ATP5C1P1	433.6506326	462.5068531	458.145638	674.1382416	656.289366	687.741345	-0.57550785	9.136730829	5.86E-06	0.002297
ENSG00000232362	ATP5LP2	137.5234645	111.3608734	91.31956974	176.7614915	200.51518	220.872791	-0.81271595	7.29533354	6.21E-06	0.002323
ENSG00000227008	RP3-417G15.1	42.16047816	32.33057614	34.05136499	62.05456617	72.5673984	62.8074288	-0.85974622	5.691337877	6.34E-06	0.002323
ENSG00000242058	RPS4XP19	47.17958271	39.51514862	39.21066271	70.98666282	70.65773	79.5560764	-0.8138397	5.874045549	7.05E-06	0.002501
ENSG00000240371	RPS4XP13	96.36680723	90.7052275	94.41514838	166.4190638	131.130562	241.808601	-0.94030134	7.105516854	8.04E-06	0.002768
ENSG00000074416	MGLL	16.06113454	13.47107339	14.44603363	5.171213848	5.72900514	5.2339524	1.43984616	3.4809878	8.53E-06	0.002851
ENSG00000161011	SQSTM1	235.3960031	219.1294605	198.1170327	130.6906772	150.227246	128.231834	0.67635387	7.477133733	9.45E-06	0.003066
ENSG00000261679	ATP5HP1	26.60125408	22.45178899	22.18498022	47.01103498	45.195485	40.8248287	-0.90109083	5.123499398	9.76E-06	0.003078
ENSG00000104812	GYS1	93.85725496	79.92836879	89.77178042	57.82357302	47.7417095	48.1523621	0.77009168	6.146029232	1.03E-05	0.003173
ENSG00000147123	NDUFB11	115.4394045	115.4021954	102.6700247	180.9924847	159.775588	190.515867	-0.67268629	7.180170086	1.17E-05	0.003417
ENSG00000251306	NDUFB4P2	85.82668769	84.86776237	67.5868002	163.1282914	107.577985	159.635548	-0.8556126	6.813450743	1.19E-05	0.003417
ENSG00000242262	RP11-100N21.1	269.0240035	246.5206431	249.7100099	361.514859	382.570232	427.613911	-0.61450605	8.338002005	1.20E-05	0.003417
ENSG00000218682	AC010150.1	121.46233	97.88979998	119.1797775	168.7696156	183.328164	191.562658	-0.68415747	7.206843215	1.30E-05	0.003595
ENSG00000114023	FAM162A	48.68531407	49.39393577	50.04518794	80.85898016	78.2964036	86.8836098	-0.73268559	6.055842668	1.44E-05	0.003884
ENSG00000129084	PSMA1	10.54011954	9.878787154	13.93010386	19.27452434	34.3740308	29.3101334	-1.25822672	4.332016987	1.49E-05	0.003886
ENSG00000133639	BTG1	71.77319497	57.92561558	63.45936202	95.90251136	119.672552	109.389605	-0.74766362	6.442686494	1.51E-05	0.003886
ENSG00000233055	RP11-490D19.8	274.5450185	291.8732568	263.124184	434.3819632	402.303472	401.444149	-0.5777041	8.432436453	1.74E-05	0.004395
ENSG00000100994	PYGB	599.7829929	732.8263925	578.357275	441.4336185	396.574467	395.686801	0.63110859	9.037560442	1.98E-05	0.004888
ENSG00000242706	RPS27AP9	53.70441861	53.43525779	42.82217112	74.74754562	87.2081893	96.8281194	-0.78212113	6.105922506	2.05E-05	0.004949
ENSG00000234750	CTD-2666L21.2	218.8329581	253.7052155	227.0090999	417.4579906	301.091048	440.698792	-0.72980053	8.279923626	2.11E-05	0.004994
ENSG00000112964	GHR	14.05349272	11.22589449	11.86638477	18.80441399	38.1933676	33.4972953	-1.26776047	4.447545785	2.37E-05	0.005493
ENSG00000146729	GBAS	270.0278244	289.1790421	287.3728833	158.4271879	211.97319	127.708439	0.76893623	7.815447368	2.88E-05	0.006553
ENSG00000178464	RPL10P16	31.62035862	32.33057614	37.14694362	55.00291093	56.6534953	61.2372431	-0.77456743	5.538108798	3.21E-05	0.007139
ENSG00000136842	TMOD1	165.1285395	147.7327715	167.1612463	101.0737252	111.397322	96.3047241	0.63792417	7.051148733	3.31E-05	0.00724
ENSG00000234031	RPS3AP44	6.524835906	8.082644035	9.802665678	16.45386224	27.3719134	17.7954382	-1.31152415	3.906293509	3.47E-05	0.007352
ENSG00000236929	RP11-699A7.1	104.3973745	87.11294127	75.84167656	114.7069253	185.874389	194.703029	-0.88605732	6.995257611	3.50E-05	0.007352
ENSG00000251939	RNU6-1278P	1.505731363	1.796143119	3.611508408	6.581544897	8.91178577	10.9913	-1.91579077	2.682083974	3.57E-05	0.007367
ENSG00000277443	MARCKS	99.88018041	72.29476054	84.09655293	138.2124428	124.128445	182.664939	-0.79915869	6.879045777	3.69E-05	0.007435
ENSG00000140945	CDH13	97.8725386	78.13222567	108.861182	58.76379372	50.9244901	58.6202669	0.75177242	6.262050441	3.73E-05	0.007435
ENSG00000196776	CD47	10.54011954	13.02203761	12.38231454	21.15496574	29.9181379	25.6463667	-1.0735101	4.28589566	4.07E-05	0.007975
ENSG00000138326	RPS24	327.2456162	316.1211889	297.175549	442.3738392	444.316176	488.327759	-0.54778267	8.595261121	4.48E-05	0.008627
ENSG00000143420	ENSA	33.12608999	61.9669376	51.07704748	29.61695204	20.369796	18.3188334	1.08836938	5.216494181	4.89E-05	0.009263
ENSG00000243859	RPL5P17	16.06113454	13.02203761	10.83452522	22.09518644	28.0084696	38.7312477	-1.14672561	4.474718415	5.03E-05	0.009363
ENSG00000101558	VAPA	184.7030472	142.793378	144.9762661	253.3894785	225.340869	258.033853	-0.64261954	7.661002166	5.15E-05	0.009429
ENSG00000143933	CALM2	230.3768985	251.0110009	225.4613106	325.7864724	364.746661	350.151415	-0.55639969	8.189873406	5.43E-05	0.009782
ENSG00000237550	RPL9P9	72.77701588	107.3195514	98.54258656	129.2803462	183.328164	164.869501	-0.7720064	6.984097012	6.03E-05	0.010667
ENSG00000243256	RPL30P14	42.16047816	41.76032751	35.08322453	60.17412477	63.0190565	81.6496574	-0.78120529	5.776284204	6.10E-05	0.010667
ENSG00000149577	SIDT2	42.66238862	46.69972109	55.20448566	20.21474504	29.2815818	29.3101334	0.88437471	5.261350453	6.21E-05	0.010692
ENSG00000161533	ACOX1	55.21014998	65.55922384	72.23016816	40.89960043	39.4664798	31.4037144	0.78710185	5.700944652	6.38E-05	0.010817
ENSG00000169047	IRS1	24.59361226	26.493111	17.02568249	45.60070393	40.103036	39.7780382	-0.87654749	5.052207267	6.65E-05	0.010953
ENSG00000231006	RPL7P32	75.28656815	77.68318989	63.9752918	104.834608	113.306991	125.614858	-0.66102636	6.558526855	6.65E-05	0.010953
ENSG00000225224	RPS27AP12	1.003820909	1.347107339	1.031859545	4.701103498	5.09244901	6.28074288	-2.17339532	2.062907876	7.38E-05	0.01194
ENSG00000116688	MFN2	512.9524843	533.9035421	557.7200841	415.5775492	287.086813	326.075234	0.63900279	8.782390518	7.46E-05	0.01194
ENSG00000229758	DYNLT3P2	4.015283635	1.796143119	2.579648863	0	0	0	5.47425341	1.299288607	7.87E-05	0.012422
ENSG00000063660	GPC1	260.9934363	337.6749064	249.7100099	157.0168568	166.777705	204.647539	0.68373968	7.850775098	8.19E-05	0.012685
ENSG00000119715	ESRRB	17.5668659	19.75757431	13.41417409	7.051655247	3.81933676	9.42111432	1.29004168	3.713971981	8.26E-05	0.012685
ENSG00000140479	PCSK6	28.6088959	34.57575504	25.79648863	13.16308979	13.3676787	18.3188334	0.98797607	4.558794824	8.87E-05	0.013431
ENSG00000234782	TPT1P9	138.0253749	131.1184477	128.4665134	204.4980022	222.158088	176.384196	-0.59912843	7.387963896	9.18E-05	0.013714
ENSG00000235089	RP3-445O10.1	47.17958271	54.33332935	49.52925816	98.25306311	68.7480617	83.7432384	-0.73600425	6.087101639	9.66E-05	0.014021
ENSG00000232901	CYCSP10	132.5043599	125.7300183	147.0399852	188.9843606	205.607629	209.881491	-0.57675378	7.401159508	9.93E-05	0.014021
ENSG00000117479	SLC19A2	2.509552272	4.041322018	1.547789318	0	0	0	5.46047406	1.296182314	1.00E-04	0.014021

ENSG00000187446	CHP1	27.60507499	30.08539724	33.01950544	19.74463469	14.0042348	12.5614858	0.95136329	4.590295049	1.00E-04	0.014021
ENSG00000084234	APLP2	418.5933189	428.3801339	407.0685905	308.3923895	270.536354	293.62473	0.52195673	8.474650141	0.0001	0.014021
ENSG00000004779	NDUFAB1	512.9524843	414.0109889	446.2792533	593.7493718	764.503908	726.472593	-0.60171198	9.172212492	0.000101	0.014021
ENSG00000090372	STRN4	60.73116498	64.66115228	69.13458952	45.60070393	33.7374747	37.161062	0.72812618	5.731709101	0.000104	0.01424
ENSG00000126561	STAT5A	23.0878809	21.10468165	21.15312067	12.69297944	8.91178577	10.4679048	1.002484	4.125847287	0.000107	0.014499
ENSG00000267590	NDUFA3P1	79.80376224	102.8291936	66.03901089	165.0087328	112.033878	152.308015	-0.78829894	6.833929176	0.000112	0.014947
ENSG00000240583	AQP1	5.019104543	8.082644035	6.191157271	0.9402207	1.27311225	2.09358096	2.13343955	2.343243516	0.000115	0.014947
ENSG00000115541	HSPE1	13.55158227	17.51239541	15.47789318	25.38595889	38.1933676	28.7867382	-0.96742646	4.57514106	0.000116	0.014947
ENSG00000198053	SIRPA	11.54394045	11.22589449	9.286735906	23.97562784	21.0063522	19.8890191	-1.01451233	4.093003042	0.000117	0.014947
ENSG00000078804	TP53INP2	282.0736753	278.8512192	294.5959001	387.8410386	401.666916	433.371259	-0.51542891	8.43962748	0.000117	0.014947
ENSG00000115268	RPS15	94.86107587	143.6914495	100.0903759	157.4869672	197.332399	213.545258	-0.74292171	7.246911639	0.00013	0.016383
ENSG00000231500	RPS18	260.4915258	294.1184357	263.6401138	362.92519	390.208906	488.851154	-0.60145245	8.427030594	0.000136	0.016946
ENSG00000138442	WDR12	25.09552272	16.16528807	25.28055885	35.25827623	40.7395921	48.1523621	-0.90380112	5.023001712	0.000141	0.017451
ENSG00000162889	MAPKAPK2	211.3043013	205.2093513	223.9135213	139.1526635	160.412144	133.989181	0.56507369	7.492843882	0.000144	0.01757
ENSG00000213700	RPL17P50	10.03820909	14.81818073	10.31859545	21.15496574	24.8256889	24.5995763	-0.98399189	4.20738691	0.000146	0.017652
ENSG00000213468	FIRRE	18.57068681	18.41046697	17.02568249	41.36971078	25.4622451	36.1142715	-0.94161924	4.764951118	0.000153	0.017904
ENSG00000244734	HBB	334.2723626	46.69972109	116.6001286	498.3169708	658.835591	532.292959	-1.76369915	8.509841644	0.000153	0.017904
ENSG00000254373	RP11-34P1.2	120.9604195	132.465555	119.1797775	187.5740296	162.321812	243.378787	-0.67198698	7.339109715	0.000153	0.017904
ENSG00000271423	CYCSP1	76.79229951	83.52065503	82.54876361	109.0656012	122.218776	149.691039	-0.64807559	6.71091896	0.000158	0.018111
ENSG00000039560	RAI14	0.501910454	0.898071559	0.515929773	5.171213848	3.81933676	3.66376668	-2.60443022	1.767590822	0.000159	0.018111
ENSG00000184752	NDUFA12	90.84579224	114.9531596	89.25585065	131.1607876	168.050817	168.009872	-0.65799483	6.997252326	0.000159	0.018111
ENSG00000163947	ARHGEF3	11.04203	11.67493027	14.44603363	6.111434547	3.18278063	5.2339524	1.30289398	3.292612205	0.000162	0.018246
ENSG00000167283	ATP5L	538.5499175	302.2010798	576.8094857	706.5758557	922.369827	886.108141	-0.82741647	9.357173433	0.000171	0.018816
ENSG00000233406	RP11-296A18.5	57.71970225	74.09090365	57.78413453	98.72317346	92.9371945	106.249234	-0.64950641	6.360385194	0.000172	0.018816
ENSG00000224631	RPS27AP16	279.5641231	280.6473623	245.5825717	404.7650112	350.742426	417.669401	-0.54252724	8.369680357	0.000172	0.018816
ENSG00000168028	RPSA	38.14519453	47.59779265	27.34427795	66.75566967	65.565281	61.7606383	-0.7714416	5.702532174	0.00018	0.019451
ENSG00000127824	TUBA4A	1075.594104	1255.953076	1381.144001	1642.565562	1914.12427	1864.85724	-0.54603503	10.57275575	0.000184	0.01972
ENSG00000154582	ELOC	104.3973745	75.88704677	100.6063056	152.3157533	125.401557	177.430986	-0.70075495	6.948947367	0.000188	0.01982
ENSG00000113583	C5orf15	17.5668659	13.47107339	15.99382295	31.49739344	33.7374747	24.076181	-0.92262822	4.554658274	0.000189	0.01982
ENSG00000123131	PRDX4	15.05731363	14.36914495	10.83452522	24.91584854	22.2794644	31.9271096	-0.97315744	4.379923336	0.000191	0.01982
ENSG00000099795	NDUFB7	135.5158227	183.2065981	127.9505836	236.9356163	217.702195	238.144834	-0.63158504	7.576182466	0.000192	0.01982
ENSG00000091436	MAP3K20	171.1514649	148.6308431	180.5754204	251.0389268	220.884976	272.68892	-0.57598844	7.702983585	0.000197	0.020158
ENSG00000008988	RPS20	70.26746361	92.05233484	63.45936202	103.424277	125.401557	142.363505	-0.71185317	6.647722383	0.0002	0.020321
ENSG00000215030	RPL13P12	91.84961314	123.4848394	94.41514838	149.9652016	152.136914	183.188334	-0.64535763	7.059403966	0.000205	0.020575
ENSG00000072422	RHOBTB1	13.04967181	17.51239541	28.89206726	7.991875946	8.27522965	7.8509286	1.29225966	3.913228447	0.000208	0.020575
ENSG00000198959	TGM2	45.67385135	56.57850825	46.43367953	29.14684169	32.4643625	26.6931572	0.75921797	5.347461814	0.000208	0.020575
ENSG00000198952	SMG5	70.76937406	70.04958164	77.90539566	51.71213848	41.3761482	44.4885954	0.65989944	5.922288906	0.000212	0.020758
ENSG00000183873	SCN5A	377.9385721	366.4131963	465.8845846	282.5363202	195.422731	284.72701	0.66306745	8.367223324	0.000215	0.020901
ENSG00000182899	RPL35A	304.6596458	334.5316559	268.2834817	408.0557836	425.856049	539.097097	-0.59681407	8.573358633	0.000218	0.020998
ENSG00000166592	RRAD	80.30567269	94.29751374	63.9752918	99.19328381	173.143266	147.597458	-0.8086401	6.784406683	0.00022	0.02102
ENSG00000106633	GCK	28.10698544	48.49586421	62.42750248	20.68485539	20.369796	26.169762	1.04392603	5.15513342	0.000224	0.021226
ENSG00000166123	GPT2	18.57068681	6.735536696	16.50975272	3.760882798	3.81933676	5.75734764	1.62111841	3.360718683	0.000229	0.0215
ENSG00000173457	PPP1R14B	17.5668659	19.75757431	14.9619634	26.32617959	41.3761482	32.9739001	-0.92394277	4.709883496	0.000233	0.021712
ENSG00000236391	AC092573.2	461.757618	429.7272412	444.2155342	689.6518831	553.167274	679.890416	-0.52661586	9.087544687	0.000238	0.02199
ENSG00000249360	CTD-2233C11.3	9.536298632	9.429751374	10.31859545	19.74463469	20.369796	18.3188334	-0.99164696	3.952147566	0.000247	0.02264
ENSG00000243199	RP11-408P14.1	38.14519453	48.49586421	31.47171613	65.81544897	57.9266075	74.8455193	-0.7463333	5.747958527	0.00025	0.022755
ENSG00000033627	ATP6V0A1	89.34006087	97.4407642	107.3133927	59.23390407	71.2942862	61.2372431	0.62157821	6.359356066	0.000277	0.024876
ENSG00000182359	KBTBD3	42.16047816	26.94214678	37.6628734	80.38886981	52.8341585	56.0032907	-0.83646776	5.652092777	0.000278	0.024876
ENSG00000160058	BSDC1	42.16047816	40.86225595	38.69473294	20.21474504	15.9139032	30.3569239	0.85964712	5.02923145	0.000292	0.025952
ENSG00000250479	CHCHD10	102.3897327	115.4021954	86.16027202	130.2205669	176.326047	171.150243	-0.64706278	7.032871823	0.000302	0.026549
ENSG00000150401	DCUN1D2	16.06113454	13.92010917	13.41417409	7.521765597	7.00211739	5.2339524	1.12506207	3.544878251	0.000333	0.028943
ENSG00000225200	AB019441.29	95.36298632	124.382911	101.6381652	144.3238774	166.141149	176.384196	-0.59550253	7.082136759	0.000334	0.028943
ENSG00000114737	CISH	20.57832863	45.35261375	39.72659249	10.81253805	21.0063522	15.7018572	1.17180977	4.740369183	0.000339	0.028981
ENSG00000121671	CRY2	23.58979135	24.69696788	24.76462908	13.63320014	14.0042348	12.0380905	0.88061066	4.318138577	0.000339	0.028981
ENSG00000163584	RPL22L1	64.74644861	68.7024743	63.45936202	82.26931121	105.031761	129.802019	-0.68402726	6.433004101	0.000356	0.030135
ENSG00000197444	OGDHL	279.5641231	286.4848275	317.2968101	211.0795471	221.521532	179.524567	0.52984344	7.968097519	0.000358	0.030135
ENSG00000198034	RPS4X	355.8545121	357.4324807	341.5455094	510.5398399	455.13763	495.131897	-0.470337	8.71491967	0.000363	0.030282
ENSG00000235907	RP4-580O19.2	21.08023908	14.36914495	17.54161227	28.20662099	32.4643625	34.5440858	-0.84534697	4.67156949	0.000373	0.030959
ENSG00000198795	ZNF521	26.60125408	21.55371743	22.18498022	39.01915903	38.8299237	38.7312477	-0.72972546	5.000052906	0.000383	0.031495
ENSG00000073578	SDHA	9.536298632	22.00275321	10.83452522	7.521765597	1.90966838	3.66376668	1.63801052	3.410150726	0.000392	0.032071
ENSG00000132341	RAN	95.36298632	78.13222567	85.64434224	113.7667046	135.586455	139.746529	-0.58510484	6.764916281	0.000397	0.032181
ENSG00000214975	PPIAP29	22.08405999	22.00275321	15.47789318	28.20662099	38.8299237	42.3950144	-0.86403409	4.854423407	0.000413	0.033308
ENSG00000100209	HSCB	0.501910454	0	0.515929773	2.350551749	4.55589289	3.14037144	-3.08034934	1.449877934	0.000423	0.033812
ENSG00000164258	NDUFS4	245.9361226	197.5757431	232.6843274	317.7945965	299.817936	366.376668	-0.54263901	8.116525877	0.000426	0.033812
ENSG00000225178	RPSAP58	63.24071725	66.00825962	75.32574679	118.9379185	91.0275261	102.062072	-0.61438973	6.443968672	0.000429	0.033812
ENSG00000214753	HNRNPUL2	17.5668659	25.14600366	19.08940158	36.19849693	31.1912502	40.8248287	-0.80488881	4.872713043	0.000438	0.034284
ENSG00000236801	RPL24P8	55.71206043	82.17354769	65.00715134	104.3644977	93.5737506	125.091462	-0.66957173	6.469331091	0.000458	0.035262
ENSG00000161791	FMNL3	68.25982179	72.74379632	67.07087043	55.47302128	33.1009186	35.5908763	0.73111557	5.827135574	0.000458	0.035262
ENSG00000224948	ATP5G1P8	81.81140406	80.37740457	87.70806133	105.7748287	132.403674	135.559367	-0.57793675	6.709343277	0.000462	0.035262
ENSG00000117298	ECE1	61.73498588	75.88704677	68.61865975	47.95125568	43.2858166	41.3482239	0.63560569	5.851345416	0.000464	0.035262
ENSG00000136238	RAC1	89.84197133	65.55922384	86.67620179	103.424277	139.405792	139.223134	-0.65717837	6.708985848	0.000466	0.035262
ENSG00000112996	MRPS30	18.57068681	18.41046697	21.15312067	37.13871763	33.7374747	29.3101334	-0.78815408	4.768727087	0.00047	0.035389
ENSG00000206418	RAB12	111.4241209	107.3195514	109.3771118	139.6227739	162.958368	177.954382	-0.54881312	7.082487194	0.000479	0.035429
ENSG00000178741	COX5A	1177.481926	1044.008188	1132.981781	1437.59745	1689.41996	1513.65903	-0.46800645	10.38068276	0.000479	0.035429
ENSG00000228224	NACAP1	55.21014998	43.10743485	44.36996044	65.81544897	75.1136229	82.6964479	-0.64706478	5.950000176	0.00048	0.035429
ENSG00000263232	ATP5A1P3	59.72734407	84.86776237	79.45318497	94.49218031	130.494006	136.082762	-0.68337515	6.617519896	0.000489	0.035827
ENSG00000147010	SH3KBP1	83.31713542	86.21486971	89.77178042	130.2205669	137.496123	113.053372	-0.55245135	6.747583949	0.000494	0.035947
ENSG00000181904	C5orf24	27.10316453	23.34986055	27.86020772	36.19849693	45.195485	50.7693383	-0.7521816	5.163107195	0.000499	0.036128
ENSG00000142534	RPS11	195.7450772	220.0275321	196.0533136	256.2101406	295.362043	338.113325	-0.53873597	7.971762097	0.000515	0.036981
ENSG00000115211	EIF2B4	48.68531407	52.08815045	49.52925816	78.97853876	74.4770668	72.7519383	-0.58947305	5.991747235	0.00052	0.036981
ENSG00000225496	AC104651.2	8.532477724	6.735536696	13.41417409	15.51364154	24.8256889	21.4592048	-1.10091473	3.978505303	0.000521	0.036981

ENSG00000213619	NDUFS3	506.9295589	475.5288907	471.0438823	662.3854829	641.648576	667.328931	-0.43985658	9.159050649	0.000538	0.037803
ENSG00000216938	RPL7P58	3.011462726	1.796143119	5.159297725	12.22286909	7.63867352	8.37432384	-1.52970093	2.873285988	0.000539	0.037803
ENSG00000125730	C3	22.58597045	24.24793211	19.60533136	15.04353119	10.8214542	7.8509286	0.9635675	4.164919699	0.000552	0.038261
ENSG00000107262	BAG1	59.72734407	59.7217587	58.81599407	91.20140786	81.4791842	91.594167	-0.570351	6.222491058	0.000552	0.038261
ENSG00000175920	DOK7	8.532477724	13.02203761	10.83452522	3.290772449	5.09244901	4.71055716	1.32547065	3.123184757	0.000571	0.039117
ENSG00000218175	AC016739.2	142.0406586	197.1267073	171.8046143	238.8160577	241.891328	271.642129	-0.55690822	7.723983145	0.000575	0.039117
ENSG00000117707	PROX1	76.79229951	61.9669376	59.33192384	93.08184926	98.6661996	106.772629	-0.59119145	6.385000058	0.000575	0.039117
ENSG00000197879	MYO1C	84.82286678	105.5234082	95.96293769	64.87522827	57.9266075	67.5179859	0.58658373	6.334999884	0.000582	0.039376
ENSG00000189186	DCAF8L2	9.536298632	10.77685871	4.12743818	1.880441399	2.54622451	2.6169762	1.79364923	2.68224042	0.000589	0.039388
ENSG00000205981	DNAJC19	73.78083679	69.60054586	66.03901089	92.61173891	103.758649	116.193743	-0.57573334	6.45609217	0.000592	0.039388
ENSG00000204564	C6orf136	24.09170181	22.90082477	24.76462908	36.19849693	34.3740308	54.9565002	-0.81012027	5.077646108	0.000593	0.039388
ENSG00000117643	MAN1C1	19.07259726	17.96143119	21.66905045	13.16308979	6.36556127	9.42111432	0.9772114	3.986244112	0.000612	0.04026
ENSG00000215464	AP000354.2	16.56304499	22.00275321	13.93010386	27.73651064	35.6471431	30.8803191	-0.82408064	4.659069341	0.000621	0.04026
ENSG00000179988	PSTK	8.030567269	7.184572476	8.770806133	15.98375189	14.0042348	17.7954382	-1.00188922	3.687611638	0.000622	0.04026
ENSG00000075415	SLC25A3	2527.621048	2417.608638	2598.738264	3280.900131	3509.33393	3301.57717	-0.41974265	11.521633	0.000625	0.04026
ENSG00000185088	RPS27L	3.011462726	7.633608255	8.254876361	11.75275874	14.6407909	19.3656239	-1.25867786	3.540222934	0.000625	0.04026
ENSG00000172586	CHCHD1	31.11844817	36.82093394	27.34427795	52.65235918	44.5589289	56.5266859	-0.68947006	5.408636354	0.000627	0.04026
ENSG00000070087	PFN2	72.77701588	63.76308072	62.94343225	96.84273206	108.851098	91.0707717	-0.57001583	6.382966584	0.000635	0.040527
ENSG00000219470	RP3-337H4.6	128.4890763	162.5509523	108.861182	208.7289953	187.147501	206.217724	-0.58888104	7.391950521	0.000641	0.04067
ENSG00000108262	GIT1	64.74644861	74.09090365	61.39564293	44.66048323	40.7395921	45.0119906	0.6167973	5.817058334	0.000654	0.041031
ENSG00000159592	GPBP1L1	51.6967768	35.4738266	61.91157271	76.15787667	77.6598474	88.4537955	-0.70576038	6.043648306	0.000656	0.041031
ENSG00000204396	VWA7	8.030567269	8.082644035	11.350455	4.701103498	1.90966838	3.14037144	1.41907234	2.879189326	0.000657	0.041031
ENSG00000254112	KB-1205A7.1	40.15283635	38.61707706	40.75845203	47.48114533	68.7480617	85.8368193	-0.75315283	5.762440475	0.00067	0.041565
ENSG00000149428	HYOU1	37.14137362	43.55647063	39.21066271	28.20662099	20.369796	23.5527858	0.72040604	5.057357629	0.000673	0.041565
ENSG00000182446	NPLOC4	38.64710498	30.9834688	59.33192384	27.26640029	21.0063522	19.3656239	0.91716635	5.08446979	0.000686	0.042115
ENSG00000139112	GABARAPL1	60.73116498	66.4572954	71.71423838	41.83982113	41.3761482	46.5821763	0.61354409	5.806823229	0.00069	0.042115
ENSG00000168273	SMIM4	41.15665726	53.88429357	34.05136499	59.70401442	75.7501791	74.8455193	-0.69341236	5.841643152	0.000724	0.043951
ENSG00000105953	OGDH	1653.794947	1258.198255	1815.55687	1209.59393	863.170108	1041.55653	0.60140969	10.35346778	0.000752	0.045416
ENSG00000137692	DCUN1D5	81.81140406	73.19283209	79.45318497	104.3644977	121.58222	114.623558	-0.53646259	6.593624491	0.000756	0.045416
ENSG00000134531	EMP1	16.06113454	22.45178899	18.05754204	39.95937973	29.9181379	29.3101334	-0.81067416	4.75237932	0.000764	0.045652
ENSG00000163382	NAXE	53.20250816	43.10743485	55.20448566	78.03831807	77.0232913	73.2753336	-0.59486411	6.002594267	0.000778	0.046291
ENSG00000075886	TUBA3D	1.505731363	8.082644035	4.12743818	9.402206996	14.0042348	15.178462	-1.44422322	3.259256868	0.000787	0.046566
ENSG00000180957	PITPNB	31.62035862	35.4738266	39.72659249	19.74463469	22.2794644	22.5059953	0.72943383	4.892287901	0.000796	0.046807
ENSG00000082641	NFE2L1	750.3561292	738.2148219	758.4167656	561.781868	543.618932	575.734764	0.41819655	9.357307316	0.000799	0.046807
ENSG00000143393	PI4KB	52.70059771	46.25068531	57.78413453	33.37783484	38.1933676	23.0293906	0.7326639	5.425524463	0.000809	0.047152
ENSG00000141562	NARF	10.03820909	11.67493027	16.50975272	3.290772449	8.27522965	3.66376668	1.36823765	3.313212792	0.000824	0.047539
ENSG00000197852	FAM212B	5.019104543	7.184572476	8.254876361	2.350551749	1.90966838	2.09358096	1.64472908	2.482246996	0.000824	0.047539
ENSG00000163735	CXCL5	4.517194089	4.041322018	3.611508408	6.581544897	14.0042348	11.5146953	-1.35631957	3.027057639	0.000839	0.048154
ENSG00000185834	RPL12P4	11.04203	20.65564587	11.86638477	27.73651064	28.6450257	25.6463667	-0.89413473	4.448623019	0.000846	0.048304
ENSG00000087302	C14orf166	127.9871659	126.1790541	120.211637	173.9408294	169.32393	178.477777	-0.47891567	7.231035144	0.000856	0.048485
ENSG00000165629	ATP5C1	695.1459793	636.2836999	673.8042829	886.6281197	1043.95205	841.09615	-0.46646015	9.63811376	0.000858	0.048485
ENSG00000230807	AC099535.4	3.51337318	2.245178899	3.611508408	7.991875946	7.00211739	9.94450956	-1.41888377	2.734025581	0.000877	0.049319
ENSG00000121898	CPXM2	36.63946317	36.82093394	35.08322453	17.39408294	23.5525767	24.5995763	0.7377722	4.913529666	0.000883	0.049411
ENSG00000204220	PFDN6	13.55158227	19.30853853	11.350455	30.08706239	30.5546941	21.9826001	-0.88566101	4.460860419	0.000897	0.049941
ENSG00000159388	BTG2	19.57450772	18.85950275	12.89824431	8.461986296	9.5483419	7.32753336	1.02674819	3.801256386	0.000905	0.049948
ENSG00000142733	MAP3K6	6.022925452	11.22589449	11.86638477	1.880441399	3.18278063	5.2339524	1.49852777	2.944952804	0.000913	0.049948
ENSG00000175390	EIF3F	24.59361226	30.53443302	26.82834817	44.66048323	42.0127044	42.9184097	-0.65814678	5.176790818	0.000914	0.049948
ENSG00000170035	UBE2E3	109.9183895	89.80715594	100.6063056	148.5548705	135.586455	144.980481	-0.51764844	6.936010385	0.000918	0.049948
ENSG00000150527	CTAGE5	18.57068681	20.65564587	22.18498022	31.96750379	35.6471431	33.4972953	-0.71359477	4.802861986	0.000919	0.049948

Supplementary Table 7 Prediction of Stat5-regulated targeted genes in this study from the existing Cistromes data [46-49]

Target gene	Biosamples	MASC2 binding score	MASC2 Q value	DOI (Signaling Pathways Project Datasets)*	Ref
ATP5C1	B lymphocytes, GM12878 cells	185	1< E-05	10.1621/WdnDiLYKWM	[46]
ATP5G3	Fibroblasts, MEFs	142	1< E-05	10.1621/xXhMIGXpPo	[47]
	Mammary gland	159	1< E-05	10.1621/w9eiy79IrX	[48]
	myeloblasts, K562 cells	176	1< E-05	10.1621/WdnDiLYKWM	[46]
ATP5L	Mammary gland	85, 92	1< E-05	10.1621/w9eiy79IrX	[48]
ATP5MK (USMG5)	B lymphocytes, GM12878 cells	162	1< E-05	10.1621/WdnDiLYKWM	[46]
NDUFA2	B lymphocytes, GM12878 cells	121	1< E-05	10.1621/WdnDiLYKWM	[46]
	myeloblasts, K562 cells	1319	1< E-05	10.1621/WdnDiLYKWM	[46]
	T lymphocytes, CD4+	95, 119	1< E-05	10.1621/lSZJ58eZyg	[49]
	Mammary gland	106, 164, 176,	1< E-05	10.1621/w9eiy79IrX	[48]
	Fibroblasts, MEFs	374	1< E-05	10.1621/xXhMIGXpPo	[47]
NDUFAB1	myeloblasts, K562 cells	139	1< E-05	10.1621/WdnDiLYKWM	[46]
	B lymphocytes, GM12878 cells	174	1< E-05	10.1621/WdnDiLYKWM	[46]
	Fibroblasts, MEFs	145	1< E-05	10.1621/xXhMIGXpPo	[47]
	T lymphocytes, CD4+	77, 108	1< E-05	10.1621/lSZJ58eZyg	[49]
NDUFA1	B lymphocytes, GM12878 cells	73	1< E-05	10.1621/WdnDiLYKWM	[46]
NDUFS3	Mammary gland	111	1< E-05	10.1621/w9eiy79IrX	[48]
PYGB	Mammary gland	158	1< E-05	10.1621/w9eiy79IrX	[48]
OGDH	Fibroblasts, MEFs	101	1< E-05	10.1621/xXhMIGXpPo	[47]
MFN2	Fibroblasts, MEFs	103	1< E-05	10.1621/xXhMIGXpPo	[47]
	Mammary gland	135	1< E-05	10.1621/w9eiy79IrX	[48]
	T lymphocytes, CD4+	149	1< E-05	10.1621/lSZJ58eZyg	[49]
GNA12	B lymphocytes, GM12878 cells	150	1< E-05	10.1621/WdnDiLYKWM	[46]
	myeloblasts, K562 cells	446	1< E-05	10.1621/WdnDiLYKWM	[46]
GYS1	Fibroblasts, MEFs	138	1< E-05	10.1621/xXhMIGXpPo	[47]
SCN5A	Mammary gland	224	1< E-05	10.1621/w9eiy79IrX	[48]
PER1	Mammary gland	102, 208, 252, 277,329,468	1< E-05	10.1621/w9eiy79IrX	[48]
	Fibroblasts, MEFs	98	1< E-05	10.1621/xXhMIGXpPo	[47]
SLC6A6	myeloblasts, K562 cells	121	1< E-05	10.1621/WdnDiLYKWM	[46]
	Fibroblasts, MEFs	93, 316	1< E-05	10.1621/xXhMIGXpPo	[47]

***Signaling Pathways Project Datasets**: http://www.signalingpathways.org/index.jsf

References

[1] Cao X, Tian Y, Nguyen V, et al. Spike protein of sars-cov-2 activates macrophages and contributes to induction of acute lung inflammation in male mice. FASEB J. 2021;35:e21801.10.1096/fj.202002742RR.

[2] Kimura T, Mogi C, Tomura H, et al. Induction of scavenger receptor class b type i is critical for simvastatin enhancement of high-density lipoprotein-induced anti-inflammatory actions in endothelial cells. J Immunol 2008;181:7332-7340.10.4049/jimmunol.181.10.7332.

[3] Lee SW, Kim SY, Moon SY, et al. Statin use and covid-19 infectivity and severity in south korea: Two population-based nationwide cohort studies. JMIR Public Health Surveill 2021;7:e29379.10.2196/29379.

[4] Kollias A, Kyriakoulis KG, Kyriakoulis IG, et al. Statin use and mortality in covid-19 patients: Updated systematic review and meta-analysis. Atherosclerosis 2021;330:114-121.10.1016/j.atherosclerosis.2021.06.911.

[5] Surma S, Banach M, Lewek J. Covid-19 and lipids. The role of lipid disorders and statin use in the prognosis of patients with sars-cov-2 infection. Lipids Health Dis 2021;20:141.10.1186/s12944-021-01563-0.

[6] Pawlos A, Niedzielski M, Gorzelak-Pabis P, et al. Covid-19: Direct and indirect mechanisms of statins. Int J Mol Sci 2021;22.10.3390/ijms22084177.

[7] Reiner Z, Hatamipour M, Banach M, et al. Statins and the covid-19 main protease: In silico evidence on direct interaction. Arch Med Sci 2020;16:490-496.10.5114/aoms.2020.94655.

[8] Cariou B, Goronflot T, Rimbert A, et al. Routine use of statins and increased covid-19 related mortality in inpatients with type 2 diabetes: Results from the coronado study. Diabetes Metab 2021;47:101202.10.1016/j.diabet.2020.10.001.

[9] Raman B, Bluemke DA, Luscher TF, et al. Long covid: Post-acute sequelae of covid-19 with a cardiovascular focus. Eur. Heart J. 2022;43:1157-1172.10.1093/eurheartj/ehac031.

[10] Lindner D, Fitzek A, Brauninger H, et al. Association of cardiac infection with sars-cov-2 in confirmed covid-19 autopsy cases. JAMA Cardiol 2020;5:1281-1285.10.1001/jamacardio.2020.3551.

[11] Vrints CJM, Krychtiuk KA, Van Craenenbroeck EM, et al. Endothelialitis plays a central role in the pathophysiology of severe covid-19 and its cardiovascular complications. Acta Cardiol. 2021;76:109-124.10.1080/00015385.2020.1846921.

[12] Robinson FA, Mihealsick RP, Wagener BM, et al. Role of angiotensin-converting enzyme 2 and pericytes in cardiac complications of covid-19 infection. Am J Physiol Heart Circ Physiol 2020;319:H1059-H1068.10.1152/ajpheart.00681.2020.

[13] Daems M, Liesenborghs L, Cuijpers I, et al. Sars-cov-2 infection leads to cardiac pericyte loss, fibrosis, cardiomyocyte hypertrophy, and diastolic dysfunction. Researchsequare.com 2020.10.21203/rs.3.rs-105963/v1.

[14] Avolio E, Carrabba M, Milligan R, et al. The sars-cov-2 spike protein disrupts human cardiac pericytes function through cd147 receptor-mediated signalling: A potential non-infective mechanism of covid-19 microvascular disease. Clin. Sci. (Lond.) 2021;135:2667-2689.10.1042/CS20210735.

[15] Guzik TJ, Mohiddin SA, Dimarco A, et al. Covid-19 and the cardiovascular system: Implications for risk assessment, diagnosis, and treatment options. Cardiovasc. Res. 2020;116:1666-1687.10.1093/cvr/cvaa106.

[16] Wang EY, Mao T, Klein J, et al. Diverse functional autoantibodies in patients with covid-19. Nature 2021;595:283-288.10.1038/s41586-021-03631-y.

[17] Cuthbertson DJ, Steele T, Wilding JP, et al. What have human experimental overfeeding studies taught us about adipose tissue expansion and susceptibility to obesity and metabolic complications? Int J Obes (Lond) 2017;41:853-865.10.1038/ijo.2017.4.

[18] Mizunoe Y, Kobayashi M, Tagawa R, et al. Association between lysosomal dysfunction and obesity-related pathology: A key knowledge to prevent metabolic syndrome. Int J Mol Sci 2019;20.10.3390/ijms20153688.

[19] Hamazaki J, Murata S. Er-resident transcription factor nrf1 regulates proteasome expression and beyond. Int J Mol Sci 2020;21.10.3390/ijms21103683.

[20] Yamamoto S, Ogasawara N, Yamamoto K, et al. Mitochondrial proteins nip-snap-1 and -2 are a target for the immunomodulatory activity of clarithromycin, which involves nf-kappab-mediated cytokine production. Biochem Biophys Res Commun 2017;483:911-916.10.1016/j.bbrc.2016.12.100.

[21] McLelland GL, Fon EA. Mfn2 retrotranslocation boosts mitophagy by uncoupling mitochondria from the er. Autophagy 2018;14:1658-1660.10.1080/15548627.2018.1505154.

[22] Yap ZY, Efthymiou S, Seiffert S, et al. Bi-allelic variants in ogdhl cause a neurodevelopmental spectrum disease featuring epilepsy, hearing loss, visual impairment, and ataxia. Am. J. Hum. Genet. 2021;108:2368-2384.10.1016/j.ajhg.2021.11.003.

[23] Mathieu C, Li de la Sierra-Gallay I, Duval R, et al. Insights into brain glycogen metabolism: The structure of human brain glycogen phosphorylase. J. Biol. Chem. 2016;291:18072-18083.10.1074/jbc.M116.738898.
[24] Wende AR, Brahma MK, McGinnis GR, et al. Metabolic origins of heart failure. JACC Basic Transl Sci 2017;2:297-310.10.1016/j.jacbts.2016.11.009.
[25] Tran DH, Wang ZV. Glucose metabolism in cardiac hypertrophy and heart failure. J Am Heart Assoc 2019;8:e012673.10.1161/JAHA.119.012673.
[26] Wilde AAM, Amin AS. Clinical spectrum of scn5a mutations: Long qt syndrome, brugada syndrome, and cardiomyopathy. JACC Clin Electrophysiol 2018;4:569-579.10.1016/j.jacep.2018.03.006.
[27] Ansar M, Ranza E, Shetty M, et al. Taurine treatment of retinal degeneration and cardiomyopathy in a consanguineous family with slc6a6 taurine transporter deficiency. Hum. Mol. Genet. 2020;29:618-623.10.1093/hmg/ddz303.
[28] Lindstrom S, Wang L, Smith EN, et al. Genomic and transcriptomic association studies identify 16 novel susceptibility loci for venous thromboembolism. Blood 2019;134:1645-1657.10.1182/blood.2019000435.
[29] Jesus ICG, Araujo FM, Mesquita T, et al. Molecular basis of period 1 regulation by adrenergic signaling in the heart. FASEB J. 2021;35:e21886.10.1096/fj.202100441R.
[30] Davidson AJ, London B, Block GD, et al. Cardiovascular tissues contain independent circadian clocks. Clin. Exp. Hypertens. 2005;27:307-311.
[31] Leibetseder V, Humpeler S, Svoboda M, et al. Clock genes display rhythmic expression in human hearts. Chronobiol. Int. 2009;26:621-636.10.1080/07420520902924939.
[32] Rykaczewska U, Suur BE, Rohl S, et al. Pcsk6 is a key protease in the control of smooth muscle cell function in vascular remodeling. Circ. Res. 2020;126:571-585.10.1161/CIRCRESAHA.119.316063.
[33] Waudby-West R, Parcell BJ, Palmer CNA, et al. The association between sars-cov-2 rt-pcr cycle threshold and mortality in a community cohort. Eur. Respir. J. 2021;58.10.1183/13993003.00360-2021.
[34] Whitaker M, Elliott J, Chadeau-Hyam M, et al. Persistent covid-19 symptoms in a community study of 606,434 people in england. Nat Commun 2022;13:1957.10.1038/s41467-022-29521-z.
[35] Heubner L, Petrick PL, Guldner A, et al. Extreme obesity is a strong predictor for in-hospital mortality and the prevalence of long-covid in severe covid-19 patients with acute respiratory distress syndrome. Sci. Rep. 2022;12:18418.10.1038/s41598-022-22107-1.
[36] Valenzuela G, Alarcon-Andrade G, Schulze-Schiapacasse C, et al. Short-term complications and post-acute sequelae in hospitalized paediatric patients with covid-19 and obesity: A multicenter cohort study. Pediatr. Obes. 2022:e12980.10.1111/ijpo.12980.
[37] Carfi A, Bernabei R, Landi F, et al. Persistent symptoms in patients after acute covid-19. JAMA 2020;324:603-605.10.1001/jama.2020.12603.
[38] Diez-Fuertes F, Iglesias-Caballero M, Garcia-Perez J, et al. A founder effect led early sars-cov-2 transmission in spain. J. Virol. 2021;95.10.1128/JVI.01583-20.
[39] Fernandez-de-Las-Penas C, Cancela-Cilleruelo I, Rodriguez-Jimenez J, et al. Associated-onset symptoms and post-covid-19 symptoms in hospitalized covid-19 survivors infected with wuhan, alpha or delta sars-cov-2 variant. Pathogens 2022;11.10.3390/pathogens11070725.
[40] Spinicci M, Graziani L, Tilli M, et al. Infection with sars-cov-2 variants is associated with different long covid phenotypes. Viruses 2022;14.10.3390/v14112367.
[41] Antonelli M, Pujol JC, Spector TD, et al. Risk of long covid associated with delta versus omicron variants of sars-cov-2. Lancet 2022;399:2263-2264.10.1016/S0140-6736(22)00941-2.
[42] Lopez-Cortes GI, Palacios-Perez M, Velediaz HF, et al. The spike protein of sars-cov-2 is adapting because of selective pressures. Vaccines (Basel) 2022;10.10.3390/vaccines10060864.
[43] Wang C, Liu B, Zhang S, et al. Differences in incidence and fatality of covid-19 by sars-cov-2 omicron variant versus delta variant in relation to vaccine coverage: A world-wide review. J. Med. Virol. 2022.10.1002/jmv.28118.
[44] Boglione L, Meli G, Poletti F, et al. Risk factors and incidence of long-covid syndrome in hospitalized patients: Does remdesivir have a protective effect? QJM 2022;114:865-871.10.1093/qjmed/hcab297.
[45] Ayoubkhani D, Bermingham C, Pouwels KB, et al. Trajectory of long covid symptoms after covid-19 vaccination: Community based cohort study. BMJ 2022;377:e069676.10.1136/bmj-2021-069676.
[46] Gertz J, Savic D, Varley KE, et al. Distinct properties of cell-type-specific and shared transcription factor binding sites. Mol Cell 2013;52:25-36.10.1016/j.molcel.2013.08.037.

[47] Zhu BM, Kang K, Yu JH, et al. Genome-wide analyses reveal the extent of opportunistic stat5 binding that does not yield transcriptional activation of neighboring genes. Nucleic Acids Res 2012;40:4461-4472.10.1093/nar/gks056.
[48] Shin HY, Willi M, HyunYoo K, et al. Hierarchy within the mammary stat5-driven wap super-enhancer. Nat Genet 2016;48:904-911.10.1038/ng.3606.
[49] Villarino A, Laurence A, Robinson GW, et al. Signal transducer and activator of transcription 5 (stat5) paralog dose governs t cell effector and regulatory functions. Elife 2016;5.10.7554/eLife.08384.