

1 **Figure S1** Comparison of the microarray and Q-PCR data.

2

3 **Figure S2** GO analysis of DEGs during different time points (A. 4h vs. 0d; B. 8h vs.

4 4h; C. 1d vs. 8h; D. 2d vs. 1d; E. 6d vs. 2d).

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6 **Figure S3** Expression patterns of *POSTN*, *AKR1CL1*, and *FGFR4* during

7 intramuscular adipocyte differentiation based on microarray analysis.

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10 **Table S1** Quantitative real-time PCR primers

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Gene symbol	GenBank No.	Primer sequence (5'- 3')
<i>PPARγ</i>	NM_214379	F: TTGATTTCTCCAGCATTTC R: GGCTCCACTTTGATGGCACT
<i>C/EBPα</i>	XM_003127015	F: TGGACAAGAACAGCAACGAG R: ACCTTCTGTTGAGTCTCCACG
<i>FABP4</i>	NM_001002817	F: AAGGTGTCACGGCTACCAGAA R: CGGGACAATACATCCAACAGAG
<i>LPL</i>	NM_214286	F: CAAACTGTGGCTGCCCTAT R: AGGTGGACATTGTTGCGAGG
<i>LPIN1</i>	EU164847	F: TGCTGAAAATGTGGGCTCC R: AACCGACCAGTCTCCCTTGA
<i>KLF11</i>	NM_001134346	F: AAAAGGGGACCTGTTGAAGATAA R: GCACAGAGTTGATAAAGAATGGAAG
<i>AKR1C4</i>	NM_001123075	F: ACTTCGGCTGGATTATGTTGAT R: TGCTTGTGATTGAAATTGGACAC
<i>AKR1CL1</i>	NM_001038626	F: AACTTCGGCTGGATTATGTTGA R: AAAATAACTTTCCCACTGGCATC
<i>GAPDH</i>	NM_001206359	F: ACAGTCAAGGCGGAGAACG R: GGCAGAAGGGGCAGAGAT

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14 **Table S2** Selected clustered genes from STEM (profile 49: 0, 1, 2, 3, 4, 5)

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Gene Symbol	Genbank Accession	0d	4h	8h	1d	2d	6d
FABP4	NM_001002817	0	0.06	1.37	1.99	3.96	9.13
CD36	NM_001044622	0	-1.91	-0.35	3.41	5.3	7.81
LPL	NM_214286	0	3.48	4.08	3.93	5.86	7.11
CIDEA	AK232875	0	-1.06	0.6	0.02	5.49	6.9
LGALS13	NM_001142841	0	0.23	0.02	2.12	4.74	6.24
S100A12	NM_001160272	0	1.57	1.09	1.25	6.05	5.75
LOC733603	NM_001044552	0	2.3	2.62	4.41	7.59	5.71
LOC100155237	XM_001927816	0	1.41	1.99	3.23	3.95	4.22
SDR16C5	AK344212	0	0.6	0.97	3.06	3.26	4.21
	AK235457	0	2.97	2.81	2.7	4.22	4.17
	AK231857	0	1.84	2.1	2.99	3.77	4
	AK236586	0	0.64	1.04	1.14	2.21	3.95
FH	NM_214281	0	2.16	2.29	1.74	3.37	3.84
	AK237835	0	0.54	1.21	2.48	2.83	3.54
PLIN2	NM_214200	0	2.2	2.44	2.64	3.18	3.53
ANGPTL4	NM_001038644	0	2.68	2.27	2.84	3.42	3.51
	AK349303	0	1.58	2.41	2.49	2.98	3.51
	AK351145	0	1.35	1.04	2.12	4.36	3.49
GK	NM_001143708	0	2.01	2.22	1.54	2.55	3.45
FKBP5	AK343532	0	1.97	2.21	2.63	2.96	3.43
	AK235459	0	1.84	1.75	1.86	3.43	3.32
GLUL	AK230941	0	1.17	1.43	2.37	3.16	3.31
	AK344774	0	1.39	2.39	1.87	2.87	3.22
LOC100157073	XM_001924659	0	-0.24	0.52	1.79	3.31	3.17
	XM_003357734	0	0.93	1.19	2.34	3.37	3.17
PTGFR	FJ750950	0	-0.97	-0.2	1.89	3.46	3.17
NQO1	NM_001159613	0	0.62	0.54	1.77	2.56	3.16
FST	NM_001003662	0	1.77	1.88	2.15	3.17	3.15
TXNIP	NM_001044614	0	1.19	2.16	2.69	3.26	3.12
ANGPTL4	AK236234	0	2.1	1.62	2.25	2.97	3.09
PTGRI	NM_214385	0	0.4	0.25	1.47	2.25	3.05

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18 **Table S3** Selected clustered genes from STEM (profile 0: 0.0, -1.0, -2.0, -3.0, -4.0,
19 -5.0)
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Gene Symbol	Genbank Accession	0d	4h	8h	1d	2d	6d
EDN1	NM_213882	0	0.06	-2.12	-1.19	-3.04	-6.02
	AK349184	0	0.46	-0.86	-3.27	-3.78	-4.51
	BX670437	0	-2.74	-2.93	-2.8	-3.43	-4.28
AREG	NM_214376	0	0.63	-2.66	-3.65	-3.43	-4.25
BDKRB1	NM_001113064	0	-1.56	-3.15	-2.97	-3.4	-4.17
	XM_001925423	0	-1.44	-2.06	-1.66	-2.5	-4.1
CTH	NM_001044585	0	-1	-0.99	-1.21	-2.55	-3.78
	CK468060	0	0.23	-0.02	-1.91	-3.03	-3.66
ID4	BX670438	0	-2.33	-2.13	-2.08	-2.91	-3.65
MYL1	NM_214374	0	-0.17	-0.49	-0.81	-1.91	-3.58
WNT2B	XM_003125849	0	-1.89	-2.34	-1.62	-2.66	-3.55
	AJ961343	0	0.74	0.53	-1.49	-3.12	-3.39
	XM_003128881	0	-1.62	-1.94	-2.13	-2.44	-3.36
	CV869499	0	-1.03	-1.41	-2.43	-4.55	-3.34
	AJ560658	0	-0.99	-0.92	-1.96	-3.92	-3.19
	EW561372	0	-0.61	-1.29	-1.79	-2.61	-3.09
	NM_001164509	0	-0.15	-0.49	-1.74	-2.56	-3.07
CRABP2	DV904193	0	-1.1	-1.39	-1.83	-2.53	-2.96
	NM_214321	0	-0.22	-2.34	-2.07	-2.08	-2.93
PTCHD1	XM_001926260	0	-0.35	-0.68	-1.07	-2.53	-2.9
SFRP4	NM_001128465	0	-0.28	-0.4	-0.44	-1.43	-2.82
PALMD	NM_001038645	0	-1.61	-1.79	-1.51	-2.76	-2.74
	AK240506	0	0.04	-0.59	-1	-1.83	-2.72
	XM_003135153	0	-0.85	-1.1	-2.85	-4.02	-2.7
	DY419695	0	-0.25	-0.4	-1.62	-2.06	-2.69
	NM_001009582	0	-0.92	-1.37	-1.12	-2.86	-2.68
STMN1	DY409666	0	0.99	0.73	-1.15	-2.53	-2.66
	FS657316	0	-1.49	-0.73	-1.36	-1.92	-2.61
REM1	AK351161	0	-1	-0.73	-1.4	-2.04	-2.61
	AK233769	0	-0.03	-0.87	-0.52	-1.49	-2.6
CCNB1	NM_001170768	0	-0.87	-1.06	-2.48	-4.15	-2.6
	DB813596	0	-0.2	-0.67	-2.33	-2.84	-2.55
	CO943961	0	-0.4	-0.96	-0.8	-1.71	-2.54
	CO947754	0	-0.47	-0.39	-1.38	-1.97	-2.52
GNA14	AK232338	0	-1.71	-1.82	-1.7	-2.14	-2.51

22 **Table S4** Selected clustered genes from STEM (profile 40: 0.0, 1.0, 1.0, 0.0, 0.0, -1.0)

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Gene Symbol	Genbank Accession	0d	4h	8h	1d	2d	6d
COL14A1	XM_001924325	0	3.41	3.34	-0.39	-0.07	-0.17
RGS2	NM_001044600	0	3.1	2.83	0.77	0.74	-0.22
	CN164663	0	3.02	2.42	1.79	0.86	0.86
LOC100153765	AK350672	0	2.45	2.84	0.94	0.67	-0.35
	EW569005	0	2.26	1.52	-0.24	-0.02	0.22
UAP1	AK346399	0	2.26	1.34	-0.13	0.43	0.11
COL6A3	AK237231	0	2.06	2.11	0.1	-0.45	-0.7
	CV872237	0	2.04	1.93	0.46	0.37	0.48
	AK240559	0	1.91	1.88	0.62	0.39	-0.7
	CK450095	0	1.89	2.34	0.35	-0.3	-0.19
	BF192203	0	1.85	1.74	0.25	0.16	-0.06
IGFBP6	DQ537339	0	1.84	1.78	-0.01	-0.53	-1.72
	EW660426	0	1.8	2.14	-0.45	-1.12	-0.53
PTGS1	AK232305	0	1.76	1.24	0.33	0.45	-0.29
LMCD1	NM_001008692	0	1.74	1.61	0.35	-1.17	-2.02
SLC7A10	XM_003127014	0	1.71	1.39	0.73	1.13	-1.72
	CK463218	0	1.67	1.77	-0.19	-0.07	0.01
PTGS1	AF207823	0	1.59	1.17	0.35	0.57	-0.32
	XM_003126161	0	1.57	1.58	-0.25	-0.21	-1.56
LOC100154289	XM_001926717	0	1.54	1.36	1.08	-0.68	-1.59
	AK238292	0	1.52	1.54	0.7	0.63	0.31
LOC100519793	XM_003130388	0	1.52	1.49	0.04	-0.24	-0.33
SLC4A11	XM_001924562	0	1.51	2.1	0.71	0.48	-0.56
	AK343436	0	1.51	1.18	0.22	0.33	0.3
GEM	Z80109	0	1.5	0.86	0.06	-1.11	-0.9
IGFBP6	NM_001100190	0	1.49	1.52	-0.39	-0.4	-1.37
	AB237781	0	1.49	1.48	-0.61	-0.92	-1.1
CPE	NM_001097439	0	1.48	1.61	0.68	0.46	-0.34
	EW190742	0	1.48	1.45	0.94	0.78	0.41
SLC2A6	AK349467	0	1.47	1.65	0.85	0.67	-0.44
SAT1	AK230590	0	1.44	1.17	0.66	0.84	-0.05
GPX2	NM_001115136	0	1.42	1.65	1.12	0.26	-0.38

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26 **Table S5** Selected clustered genes from STEM (profile 9: 0.0, -1.0, -1.0, 0.0, 0.0, 1.0)

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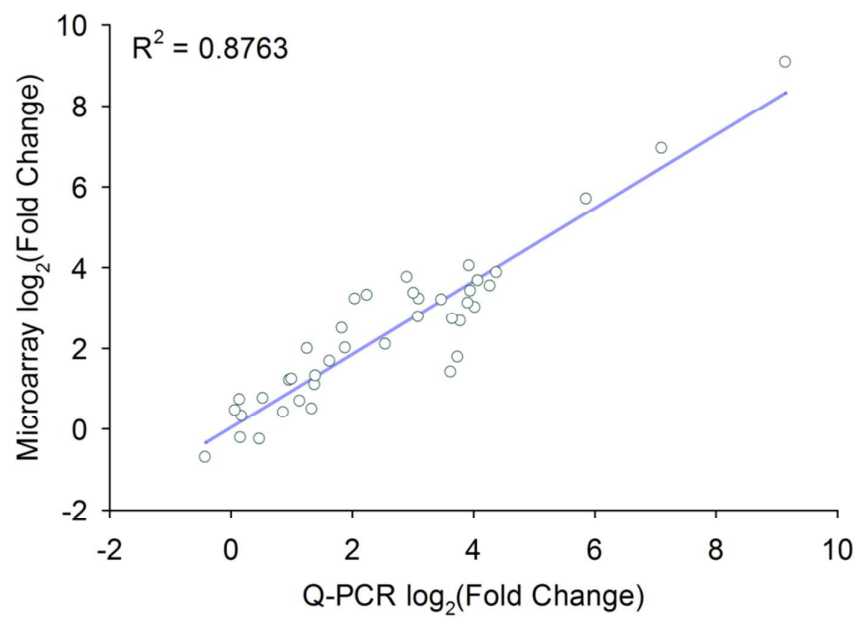
Gene Symbol	Genbank Accession	0d	4h	8h	1d	2d	6d
	XM_003127695	0	-2.55	-1.5	0.09	-0.44	0.23
IRF1	NM_001097413	0	-1.79	-1.38	-0.2	0.18	-0.24
TTC14	AK352166	0	-1.78	-1.24	0.12	0.06	0.12
LOC100157004	AK345550	0	-1.78	-1.59	0.78	0.36	0.3
OSBPL10	XM_003132089	0	-1.78	-1.56	-0.18	-0.31	-0.03
	XM_003134059	0	-1.7	-1.8	0.93	1.61	0.93
	DY425670	0	-1.66	-1.56	-0.01	0.55	0.7
	EV893206	0	-1.66	-1.17	-0.62	-0.53	-0.44
LOC100519976	XM_003132469	0	-1.6	-1.54	0.11	-0.14	0.15
GUCY1A3	NM_001018033	0	-1.59	-1.02	0.42	0.52	0.72
LOC100627650	XM_003361567	0	-1.57	-2.09	-0.84	-0.63	-0.14
	XM_003133389	0	-1.49	-0.91	-0.25	0.16	0.07
DNAH9	AK237798	0	-1.49	-1.48	0.37	0.04	0.24
EP400	AK351937	0	-1.41	-0.35	0.37	-0.11	0.1
IL1A	NM_214029	0	-1.35	-1.8	0.24	0.21	0.03
	XM_003121168	0	-1.34	-1.05	-0.76	0.08	0.3
LOC100037968	AK343380	0	-1.34	-1.39	-0.04	0.42	0.09
LOC100512686	XM_003133689	0	-1.34	-1.19	-0.87	-0.3	-0.23
RRM2B	AK351252	0	-1.32	-0.66	0.96	0.33	0.61
CIDEA	NM_001112696	0	-1.32	-1.35	0.56	1.76	3.19
NNAT	NM_001122990	0	-1.31	-1.05	0.38	0.67	0.23
SELP	NM_214078	0	-1.31	-0.45	1.28	0.74	0.88
ZPBP	NM_214106	0	-1.31	-1.11	0.13	0.34	0.16
EMX2	AK347885	0	-1.3	-1.35	-0.26	-0.29	-0.2
	DN128813	0	-1.29	-0.93	-0.01	-0.21	0.31
	AK236555	0	-1.29	-0.86	0.14	1.47	2.54
FBXO30	XM_003121151	0	-1.28	-1.08	0.41	-0.1	-0.04
	EW036532	0	-1.27	-1.26	-0.41	-0.23	0.22
	AK345415	0	-1.26	-1.22	0.33	-0.24	0.21
LOC100513229	AK238564	0	-1.24	-0.53	0.92	0.76	1.29
	BP433208	0	-1.24	-1.09	-0.6	0	-0.05
TXNRD1	NM_214154	0	-1.23	-1.34	0.67	0.76	0.77

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30 **Figure S1**

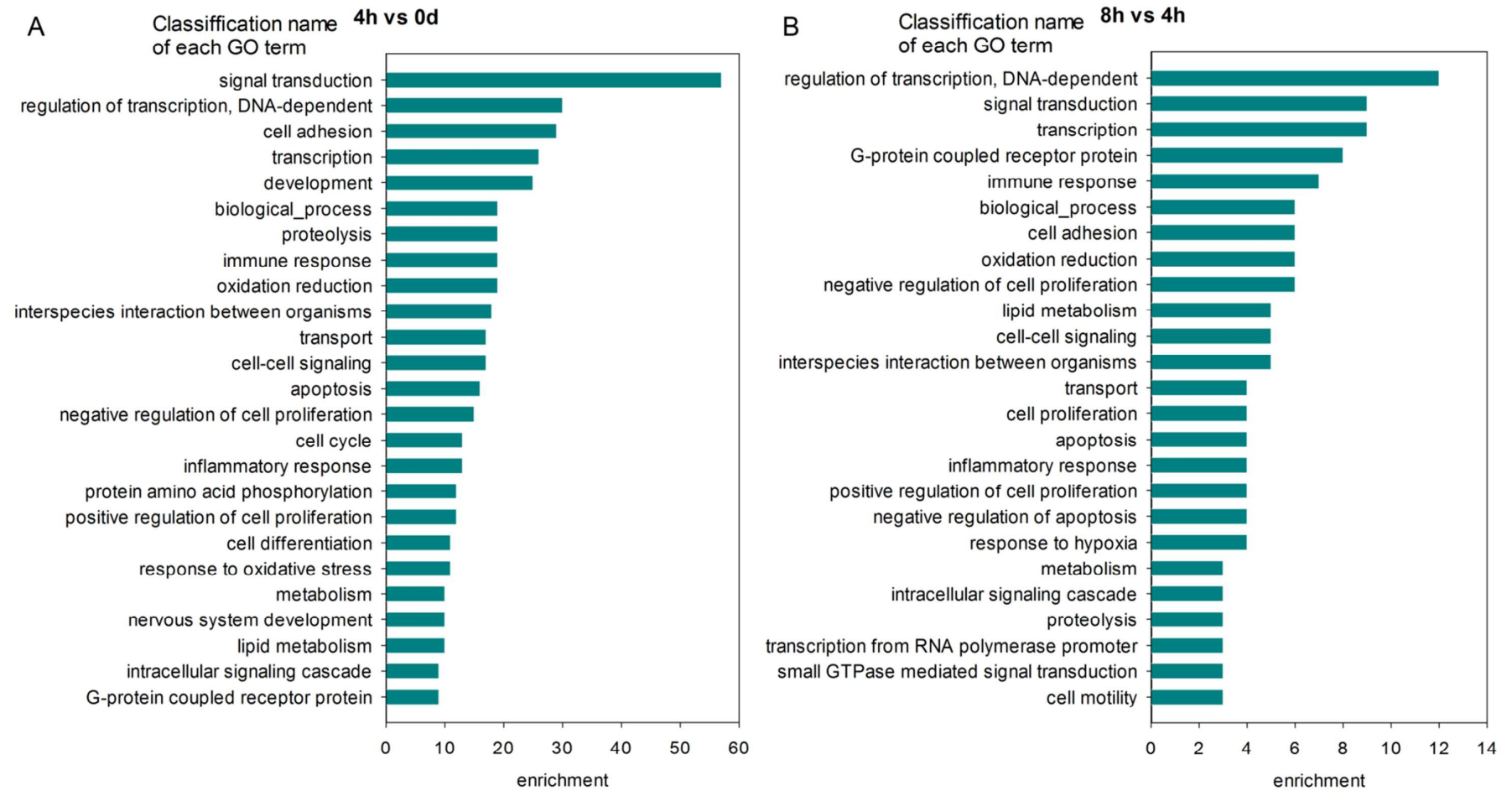
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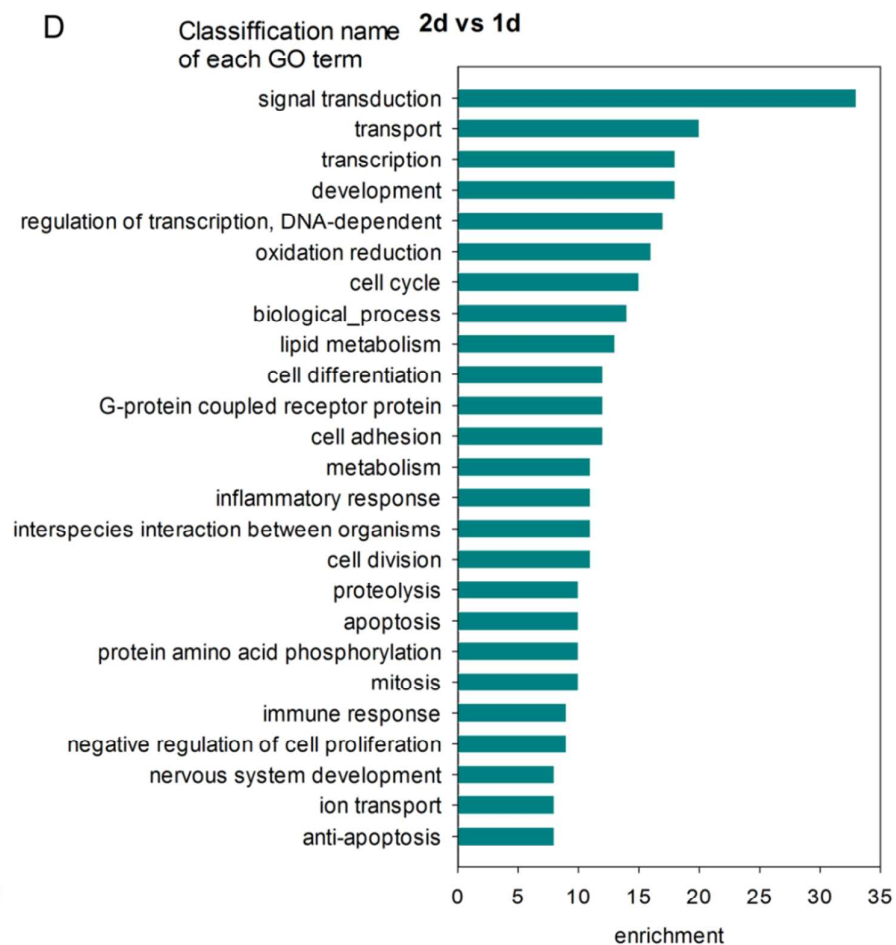
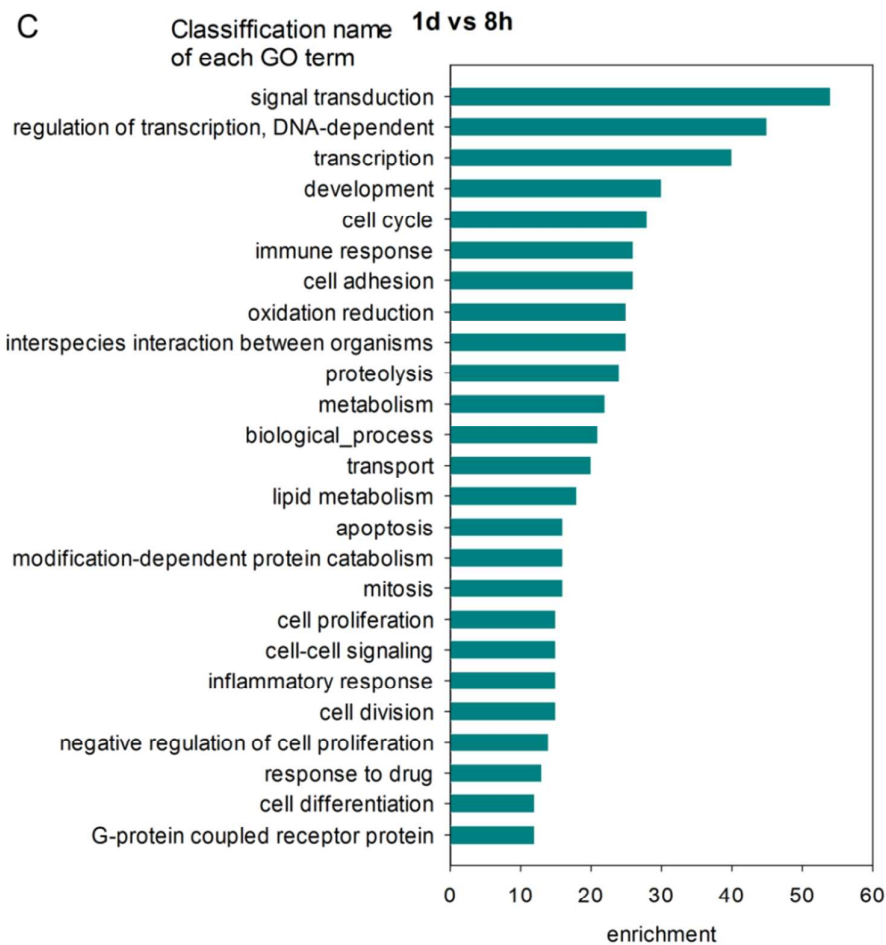


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Figure S2





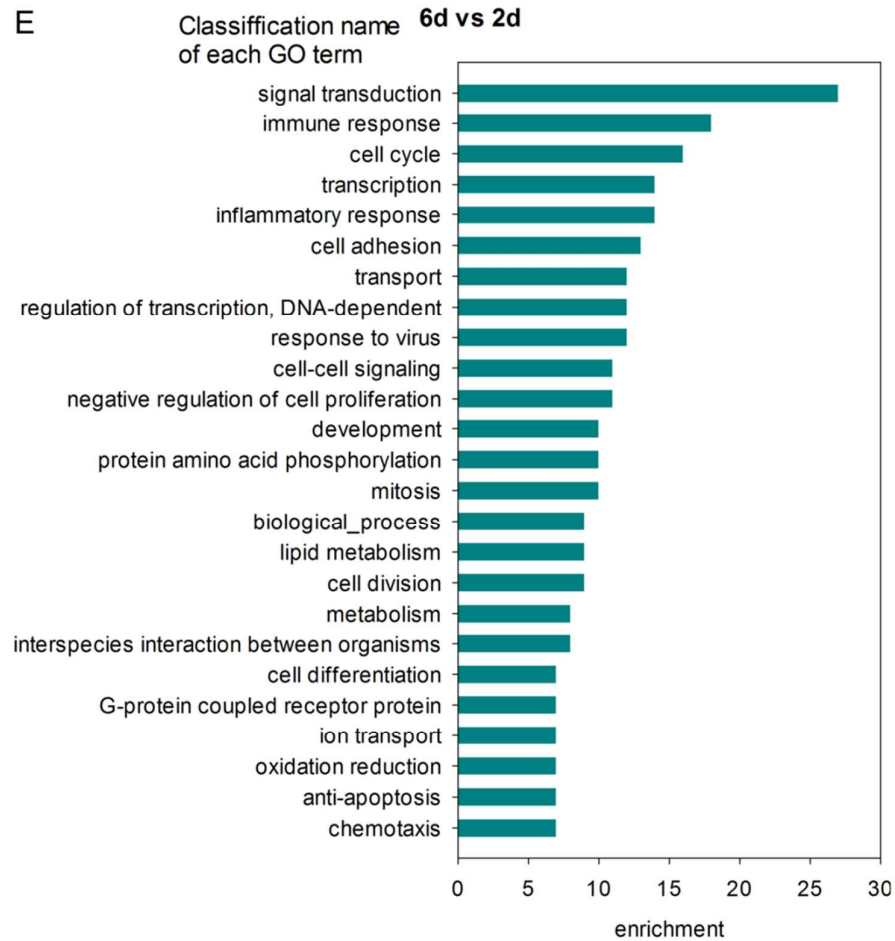


Figure S3

