

Table 2. Statistically significant DE genes for BSL male vs female subcohort analysis (statistically significant outcomes in boldface)

Gene #	Gene	Log2 Fold change at 50th percentile (female:male, smoothing factor 0.0001)	P value for 50th percentile rank-sum test	Log2 Fold change at 75th percentile (female:male, smoothing factor 0.0001)	P value for 75th percentile rank-sum test	Normalized entropy	Pearsons R (male age with TPM)	Pearsons R (fem age with TPM)	Gene #	Gene	Log2 Fold change at 50th percentile (female:male, smoothing factor 0.0001)	P value for 50th percentile rank-sum test	Log2 Fold change at 75th percentile (female:male, smoothing factor 0.0001)	P value for 75th percentile rank-sum test	Normalized entropy	Pearsons R (male age with TPM)	Pearsons R (fem age with TPM)
		Thresholds : > 0.26, or < -0.26	BHP based p-value threshold for 0.05 FDR : 2.38E-04	Thresholds : > 0.26, or < -0.26	BHP based p-value threshold for 0.05 FDR : 3.50E-03	Normalized entropy threshold: < 0.9895	Pearsons R threshold > 0.20 or < -0.20	Same threshold used as in male dataset			Thresholds : > 0.26, or < -0.26	BHP based p-value threshold for 0.05 FDR : 2.38E-04	Thresholds : > 0.26, or < -0.26	BHP based p-value threshold for 0.05 FDR : 3.50E-03	Normalized entropy threshold: < 0.9895	Pearsons R 0.05 FDR threshold (> 0.20 or < -0.20)	Same threshold used as in male dataset
1	ZFX	0.59	1.28E-31	0.59	1.42E-18	0.9889	0.16	-0.13	76	WWC3	-0.31	3.09E-02	-0.36	1.17E-03	0.9443	0.02	-0.02
2	EIF1AX	0.59	4.36E-29	0.58	3.90E-19	0.9888	-0.07	-0.19	77	FST	-0.13	2.96E-02	-0.35	3.73E-05	0.9651	-0.17	0.25
3	KDM6A	0.65	2.14E-25	0.58	3.24E-17	0.9859	0.27	0.13	78	RNF165	-0.32	2.87E-02	-0.41	3.25E-04	0.9604	0.01	-0.03
4	RPS4X	0.53	1.62E-15	0.56	6.72E-17	0.9838	-0.09	-0.01	79	CPAMD8	-0.17	2.81E-02	-0.33	1.37E-05	0.9672	-0.14	-0.28
5	MAP7D2	1.40	2.02E-14	1.48	1.25E-15	0.9065	0.01	-0.06	80	TMEM255A	-0.14	2.51E-02	-0.42	3.02E-05	0.9601	0.32	0.08
6	DDX3X	0.55	2.07E-13	0.53	5.71E-16	0.9803	0.23	-0.16	81	CA8	-0.32	2.47E-02	-0.27	4.59E-04	0.9645	-0.05	-0.09
7	OFD1	0.50	2.40E-12	0.41	2.84E-15	0.9862	0.08	0.17	82	FABP7	-0.37	2.46E-02	-0.46	4.32E-04	0.8988	0.14	0.20
8	PNPLA4	0.37	2.50E-12	0.34	5.63E-15	0.9887	-0.10	-0.05	83	PDE4C	-0.30	2.36E-02	-0.40	4.13E-06	0.9534	0.11	-0.08
9	EIF2S3	0.40	2.52E-09	0.45	2.38E-12	0.9843	0.31	0.10	84	NOTCH1	-0.15	2.05E-02	-0.32	5.38E-04	0.9668	0.15	0.02
10	TXLNG	0.34	1.84E-08	0.39	5.73E-11	0.9859	0.08	0.00	85	C1orf101	-0.30	2.04E-02	-0.31	3.38E-04	0.9701	0.16	0.08
11	PRSS16	0.92	2.44E-07	0.57	8.44E-09	0.8479	0.04	0.02	86	HP	-0.58	1.94E-02	-0.93	8.17E-06	0.7888	0.02	0.07
12	CA5B	0.34	7.83E-07	0.27	3.27E-07	0.9811	0.14	-0.17	87	KIAA1279	-12.60	1.83E-02	-0.71	9.22E-05	0.8143	0.13	-0.15
13	ZRSR2	0.63	7.36E-06	0.43	2.13E-07	0.9614	0.11	-0.04	88	DIO2	-0.38	1.73E-02	-0.42	1.04E-03	0.9471	0.12	0.08
14	SEZ6L2	0.34	1.33E-05	0.28	7.13E-07	0.9759	-0.19	-0.04	89	SSC5D	-0.24	1.61E-02	-0.31	2.55E-03	0.9619	0.21	0.01
15	PRKX	0.43	2.59E-05	0.28	2.66E-06	0.9773	0.14	0.08	90	PTPN9	-0.20	1.60E-02	-0.30	3.64E-05	0.9725	0.20	-0.11
16	CPZ	0.73	8.35E-05	0.57	5.56E-07	0.9164	0.01	0.26	91	TPPP2	-0.29	1.30E-02	-0.34	1.15E-04	0.9194	0.08	-0.03
17	ASMT	0.54	1.33E-04	0.32	2.17E-05	0.9494	-0.11	-0.03	92	FAM228A	-0.40	1.27E-02	-0.37	2.10E-04	0.9216	-0.08	0.08
18	SNRPG	0.49	2.04E-04	0.32	1.12E-03	0.9702	-0.24	0.15	93	ADAMTS8	-0.22	1.23E-02	-0.45	9.13E-07	0.9632	0.07	0.25
19	MCOLN3	0.35	2.38E-04	0.33	2.95E-05	0.9730	-0.14	-0.09	94	ANKFN1	-0.38	1.16E-02	-0.30	1.56E-04	0.9421	0.04	0.11
20	SLC27A6	0.30	4.85E-04	0.39	2.68E-07	0.9760	-0.35	-0.19	95	VWA3B	-0.38	1.11E-02	-0.29	1.85E-03	0.9550	0.16	0.04
21	PGBD5	0.29	5.62E-04	0.33	2.02E-05	0.9722	-0.22	0.06	96	EFCAB5	-0.42	9.15E-03	-0.29	2.02E-03	0.9517	0.22	0.05
22	CD3G	0.65	8.17E-04	0.26	7.51E-04	0.9358	0.15	-0.03	97	C10orf67	-0.31	8.60E-03	-0.27	4.50E-04	0.9507	0.37	0.26
23	GYG2	0.72	9.55E-04	0.67	2.33E-06	0.9043	-0.10	-0.25	98	SHC3	-0.34	8.00E-03	-0.37	4.48E-05	0.9537	0.11	0.10
24	IGSF10	0.47	1.85E-03	0.29	1.35E-03	0.9348	-0.03	-0.07	99	MED13	-0.32	7.65E-03	-0.27	2.05E-04	0.9589	0.08	0.20
25	SULF1	0.19	2.38E-03	0.27	2.38E-04	0.9811	-0.20	-0.30	100	KLK4	-0.33	5.36E-03	-0.43	5.51E-05	0.9423	0.05	0.06
26	CD2	0.36	2.70E-03	0.29	1.56E-04	0.9522	0.14	0.15	101	LUM	-0.36	5.33E-03	-0.36	5.14E-05	0.9555	0.26	0.06
27	MEGF11	0.81	3.96E-03	0.38	2.33E-04	0.9316	-0.33	-0.19	102	GREB1L	-0.35	4.28E-03	-0.34	5.03E-05	0.9679	0.05	-0.01
28	TMEM97	0.44	4.67E-03	0.38	5.28E-04	0.9419	-0.16	-0.03	103	TP53INP2	-0.41	4.21E-03	-0.39	1.89E-04	0.9620	0.38	0.30
29	DRP2	0.32	5.49E-03	0.27	4.80E-05	0.9772	-0.39	-0.23	104	ATP8A2	-0.24	3.82E-03	-0.41	8.08E-05	0.9513	0.04	0.03
30	GPR64	0.45	5.68E-03	0.44	1.63E-03	0.9433	-0.18	-0.14	105	CYB561	-0.19	3.73E-03	-0.30	2.66E-06	0.9809	0.22	0.15
31	KRT4	0.99	6.83E-03	0.57	1.12E-04	0.8086	-0.12	-0.17	106	COL4A6	-0.34	3.69E-03	-0.28	1.12E-04	0.9559	-0.04	0.01
32	GLYAT	0.47	7.03E-03	0.39	3.67E-04	0.9411	-0.11	-0.15	107	FAM20A	-0.32	3.64E-03	-0.40	8.59E-06	0.9641	-0.03	0.01
33	MORN2	0.29	1.06E-02	0.35	3.56E-05	0.9530	-0.03	0.00	108	ARTN	-0.53	3.58E-03	-0.44	5.14E-05	0.9329	0.14	-0.23
34	GIPR	0.45	1.54E-02	0.41	6.68E-04	0.9349	-0.04	-0.15	109	UPB1	-0.70	3.51E-03	-0.46	1.18E-04	0.9351	0.12	0.08
35	NCAPH	0.42	1.89E-02	0.50	2.07E-05	0.9412	-0.06	-0.06	110	NRGN	-0.35	2.85E-03	-0.28	7.78E-06	0.9687	-0.06	-0.03
36	CD3E	0.24	2.04E-02	0.28	2.02E-03	0.9523	0.13	0.11	111	RAP1GAP2	-0.36	2.44E-03	-0.31	3.27E-06	0.9783	0.44	0.23
37	SP4	1.72	2.08E-02	0.44	4.41E-04	0.8549	-0.06	-0.02	112	C4B	-0.27	2.26E-03	-0.41	4.18E-09	0.9743	0.10	0.15
38	SPRR3	0.66	2.10E-02	0.69	5.71E-04	0.6949	-0.07	-0.14	113	GREB1	-0.22	1.78E-03	-0.37	2.70E-04	0.9589	0.06	-0.06
39	DSC3	0.53	2.15E-02	0.34	1.60E-03	0.8951	0.11	0.04	114	MKX	-0.47	1.22E-03	-0.33	2.14E-04	0.9576	-0.06	-0.15
40	FH	0.28	2.63E-02	0.35	3.32E-05	0.9556	0.06	0.08	115	SYNM	-0.13	8.75E-04	-0.27	1.70E-06	0.9855	0.25	-0.01
41	TF	0.20	2.72E-02	0.35	5.49E-04	0.9625	0.11	0.03	116	PMEP1	-0.18	7.68E-04	-0.33	5.21E-08	0.9777	0.24	0.11
42	C5orf64	0.27	3.11E-02	0.30	3.38E-04	0.9619	-0.15	0.05	117	HBA2	-0.86	5.89E-04	-0.87	1.63E-04	0.7814	-0.18	-0.17
43	MOV10L1	0.19	4.04E-02	0.32	7.96E-04	0.9543	-0.07	0.02	118	ICAM5	-0.34	5.74E-04	-0.47	7.97E-06	0.9547	-0.06	0.01
44	TMEM125	0.67	4.53E-02	0.29	2.46E-03	0.8652	0.01	-0.16	119	PLCXD1	-0.40	5.17E-04	-0.36	7.21E-06	0.9683	0.19	0.03
45	CD8B	0.16	7.16E-02	0.35	2.75E-04	0.9530	0.13	0.12	120	DDX43	-0.56	4.02E-04	-0.48	3.03E-06	0.9348	0.09	0.03
46	C17orf97	0.37	7.53E-02	0.30	2.25E-03	0.9162	-0.03	0.09	121	PPP2R3B	-0.52	1.96E-04	-0.35	5.03E-05	0.9724	0.31	0.21
47	KCNRG	0.17	NA	-0.51	1.60E-03	0.8630	0.06	-0.08	122	OEEP	-0.59	1.40E-04	-0.50	6.05E-07	0.9420	-0.01	-0.04
48	ATAD3C	-0.27	2.70E-01	-0.40	1.35E-03	0.9428	0.16	-0.02	123	AGAP2	-0.42	1.40E-04	-0.45	1.64E-07	0.9570	0.08	0.13
49	ASB8	-0.08	2.60E-01	-0.28	3.25E-04	0.9815	0.23	0.07	124	MMEL1	-0.53	1.27E-04	-0.31	3.81E-05	0.9690	-0.03	0.09
50	CYP4A22	-0.01	2.10E-01	-0.31	1.08E-03	0.9431	0.06	0.06	125	NTRK1	-0.58	1.11E-04	-0.59	4.90E-08	0.9573	-0.01	0.08
51	UBBP4	-0.15	2.04E-01	-0.27	5.38E-04	0.9533	0.05	-0.18	126	SEL1L2	-1.73	1.08E-04	-0.83	1.55E-05	0.8889	-0.03	-0.23
52	REEP1	-0.16	1.88E-01	-0.29	1.12E-03	0.9600	-0.04	-0.16	127	PTGFR	-0.34	6.53E-05	-0.43	4.48E-08	0.9781	-0.10	-0.13
53	ISLR2	-0.09	1.81E-01	-0.29	1.35E-03	0.9559	0.12	-0.11	128	WISP2	-0.65	3.35E-05	-0.52	2.10E-06	0.9634	-0.03	0.12
54	RARRES1	-0.31	1.62E-01	-0.65	1.17E-03	0.8621	-0.26	-0.25	129	SV2A	-0.36	2.46E-05	-0.23	4.94E-06	0.9792	-0.03	-0.12
55	GMCL1	-0.17	1.38E-01	-0.28	1.81E-04	0.9588	0.23	-0.12	130	KCND3	-0.34	2.14E-05	-0.55	7.67E-08	0.9696	-0.16	-0.11
56	FLT1	-0.82	9.39E-02	-0.40	1.43E-03	0.8864	0.18	-0.09	131	DYNC111	-0.31	1.56E-05	-0.33	8.90E-08	0.9850	0.10	0.10
57	STRA6	-0.10	9.07E-02	-0.30	7.81E-04	0.9684	0.35	0.16	132	WDR62	-0.49	3.32E-06	-0.54	2.35E-10	0.9653	0.12	0.04
58	ADCY1	-0.18	8.96E-02	-0.32	1.51E-03	0.9552	0.03	0.13	133	NUDT4	-0.29	1.27E-06	-0.35	4.09E-08	0.9882	0.09	0.02
59	DHRS3	-0.26	8.75E-02	-0.30	2.14E-04	0.9606	0.14	0.03	134	IGF1	-1.01	1.14E-06	-0.95	9.44E-08	0.9260	-0.20	-0.32
60	CCL2	-0.22	8.54E-02	-0.44	3.55E-03	0.8938	-0.06	0.13	135	ADA	-0.59	7.99E-08	-0.64	6.34E-10	0.9683	-0.02	-0.06
61	MUSTN1	-0.38	7.84E-02	-0.38	1.37E-05	0.9543	-0.12	-0.31	136	FRG1B	-0.38	4.31E-10	-0.37	8.19E-11	0.9857	0.11	-0.22
62	SRRM3	-0.12	7.65E-02	-0.31	6.36E-06	0.9814	-0.03	-0.10	137	NOX5	-1.08	4.72E-11	-0.80	1.30E-13	0.9630	0.05	-0.09
63	CAMK1G	-0.44	7.65E-02	-0.48	2.99E-03	0.8322	-0.18	-0.08	138	SLITRK4	-1.13	4.22E-16	-1.23	1.01E-15	0.9439	-0.11	0.00
64	SHH	-0.24	6.54E-02	-0.37	5.60E-04	0.9495	0.33	0.24	139	HSD11B1	-1.61	6.83E-17	-1.42	7.35E-17	0.9138</		