

Appendix 8 Linear models

Appendix 8.1 – Linear models results from breast cancer.

cg	p-value	gene	$\Delta\beta$
cg00006081	0.001378	HMX2	-0.21731
cg00635343	3.97E-13	LOC642597	0.212598
cg00791406	8.66E-05	GRIN2B	0.286325
cg00794881	0.023767	PAX7	-0.23202
cg01141459	0.027059	HORMAD2	-0.21464
cg01175020	4.25E-10	TLX1	-0.20097
cg01454519	3.32E-09	CST5	0.217407
cg01479664	5.58E-10	TEPP	0.235181
cg01595325	8.13E-09	HS3ST4	0.226637
cg01747222	1.28E-33	CMTM5	-0.26273
cg02814558	0.007163	PRRG3	0.266977
cg02831668	3.49E-05	PLAC1	0.348757
cg02874376	2.88E-07	DLK1	-0.33326
cg02882755	2.27E-06	GRM4	0.241098
cg03543319	1.70E-11	PROKR1	0.230932
cg04096767	0.041665	WT1	-0.20322
cg04561937	8.34E-08	GAB4	0.209945
cg04954680	0.00816	LRR3B	-0.24851
cg05031352	1.27E-18	MAGEA1	0.201072
cg05052324	0.006471	PAX7	-0.31165
cg05426601	2.86E-15	CPA1	-0.20035
cg05787556	0.025587	TLX3	-0.25098
cg05816193	0.026944	HIST1H1A	-0.2254
cg05916059	0.019084	HS3ST4	0.346396
cg06036912	0.049248	CLDN6	-0.26802
cg06038358	0.0396	PROC	0.244786
cg06051311	0.001117	TRIM15	0.223023
cg06092815	0.038972	SPHKAP	-0.25916
cg06490225	0.04355	LHX1	-0.23733
cg06834698	6.31E-07	OR10A3	0.24351
cg06896909	0.005708	TMEM196	-0.30891
cg07163547	2.23E-09	RXRG	-0.30137
cg07197831	2.90E-07	DNAJC5G	0.241357
cg07504127	6.51E-12	CLDN25	0.237363
cg07696099	0.031493	HPYR1	0.248509
cg07717704	2.61E-11	HPSE2	0.215343
cg07784084	0.034674	LRR3B	0.230259
cg08133584	1.18E-06	C16orf11	-0.25763
cg09000583	0.006794	HOXB13	-0.24259

cg09212014	3.59E-09	DLK1	0.203182
cg09321400	9.95E-18	SLC6A2	-0.32992
cg09349530	3.29E-06	TBX20	-0.21615
cg09505145	0.00194	SPHKAP	0.22417
cg09975620	1.92E-05	PDX1	-0.21172
cg10208367	0.010199	C13orf36	0.228259
cg10244666	0.010899	WT1	-0.41175
cg10316270	1.17E-11	RBM46	0.217484
cg10322419	1.26E-07	LOC284661	0.265659
cg10963664	6.91E-06	DUSP13	0.210456
cg11392848	1.68E-06	C8orf22	0.296224
cg11473616	1.80E-09	CYP1A2	0.223037
cg11624728	0.002658	SLC7A14	0.234419
cg11625005	2.24E-15	TERT	-0.26304
cg11800608	4.70E-05	C20orf85	0.277352
cg11969108	0.000391	DPP6	0.330592
cg12002589	2.37E-10	LHX2	-0.21143
cg12022102	0.023776	COL29A1	0.200169
cg12105691	1.00E-12	C3orf50	0.273101
cg12131208	0.000603	C17orf64	-0.21354
cg12416080	0.040664	LRRC3B	0.201851
cg12422154	0.00187	TRIM15	0.260733
cg12747410	7.20E-05	MS4A15	0.201353
cg12788108	0.002016	C17orf64	-0.24413
cg13022402	0.002222	APOB	0.229879
cg13146839	2.16E-07	LOC647309	-0.21425
cg13207345	0.045191	PAX7	-0.20487
cg13492692	0.024758	LHX2	-0.26336
cg13696490	3.65E-14	LOC201651	-0.26107
cg13932450	9.82E-08	LOC100132354	0.21886
cg14270857	3.15E-08	HPSE2	-0.20906
cg14442421	1.42E-13	SLC24A2	-0.24099
cg15082028	0.000647	PAX7	-0.22045
cg15310492	0.004113	KCNA4	-0.32908
cg15615022	1.79E-12	TUBA3C	0.212692
cg15615793	1.40E-15	CRHR2	-0.24681
cg15731296	1.44E-05	PRRG3	0.254074
cg15741433	0.03268	HIST1H1A	-0.3075
cg16038120	0.009162	FOXP1	-0.35514
cg16092786	2.32E-06	WT1	-0.24863
cg16226642	4.13E-05	OR5P3	0.274912
cg16304215	8.51E-05	OTP	-0.2425
cg16310003	8.51E-11	HPD	-0.24979
cg17085688	2.47E-10	GNGT1	-0.20861
cg17157462	0.000427	C13orf36	0.24369
cg17187764	5.62E-05	APOBEC1	0.269585
cg18011916	5.32E-07	TBX20	-0.33078

cg18147278	0.042077	SPHKAP	0.215248
cg18404374	0.000152	LRRC3B	-0.25259
cg18421840	0.011477	ADCYAP1R1	0.253372
cg18940047	0.044304	DPP6	-0.29835
cg19909787	0.002975	HMX2	-0.23243
cg20663376	2.74E-09	TRPM1	-0.35503
cg20742415	1.99E-10	METTL11B	0.262406
cg21512644	4.43E-09	NPY2R	-0.20645
cg21865150	0.000196	HOXB13	-0.25541
cg21977377	1.10E-07	NKX2-2	-0.26497
cg22190437	0.008305	SPHKAP	-0.24274
cg22304522	0.000285	ADCY8	0.274124
cg22639011	0.002136	KCNA4	-0.23704
cg22697187	0.000128	RP1-177G6.2	0.218828
cg22785561	0.000128	GABRA4	0.200753
cg22856114	0.001789	PROC	0.255893
cg22886575	1.04E-09	HMX2	-0.20631
cg23019936	0.000817	GRIN2B	0.305408
cg23214840	5.74E-05	APOB	0.261257
cg23235241	0.041573	HS3ST4	-0.2228
cg23934819	0.001358	HEPN1	0.259644
cg24158160	4.26E-06	C1orf230	0.261466
cg24311564	0.022731	DPP6	0.345447
cg24315710	0.003288	COL29A1	0.309488
cg24592546	0.000975	TRIM15	0.271138
cg24833464	1.01E-08	KRTAP3-1	0.283601
cg25072962	7.90E-05	MS4A15	0.315585
cg25195987	0.010558	ADCYAP1R1	0.338163
cg25247290	0.018141	WIT1	-0.37375
cg25391023	0.049655	BTNL2	0.298876
cg25503804	1.02E-05	F2	0.283443
cg25537669	0.032651	NPHS1	-0.27063
cg25609301	0.020456	KCNH5	0.207871
cg25942450	0.017238	TLX3	-0.3153
cg25996557	0.000139	FRMPD4	0.223153
cg26925231	4.65E-10	SGCZ	-0.27341
cg27051318	2.16E-24	CHRNA6	0.299576
cg27189087	1.72E-05	RAX	-0.25999
cg27635394	3.02E-05	HIST1H2BB	-0.20054

Appendix 8.2 – Linear models results from colorectal cancer.

cg	p-value	gene	$\Delta\beta$
cg14075424	3.13E-24	NANOS3	0.209875
cg01618102	4.79E-23	BAI3	0.496949
cg07945335	3.85E-17	CD300LG	0.203394
cg20950932	1.18E-16	GRIA3	-0.31546
cg03609960	2.10E-16	ANKS1B	-0.38777
cg00618450	5.22E-16	SEZ6L	-0.39134
cg16415058	1.04E-15	SORCS1	-0.27869
cg10735632	1.44E-15	C2orf40	-0.28478
cg20481032	1.81E-15	PRIMA1	0.389082
cg26165108	3.13E-15	ENPP6	0.367582
cg04306063	1.32E-14	CRHBP	-0.25812
cg14386728	1.36E-14	FEZF1	-0.28715
cg20752831	1.50E-14	RIMS4	0.20803
cg12232463	3.65E-14	LONRF2	0.394115
cg09186006	5.29E-14	SLC16A12	-0.46547
cg17170839	6.79E-14	GPM6A	0.377921
cg01815529	9.52E-14	PCSK2	-0.39622
cg16717122	1.03E-13	SCG3	-0.21914
cg18959161	1.15E-13	B3GALT1	0.300868
cg08104310	1.17E-13	ASTN1	0.318123
cg01162507	2.64E-13	GP2	0.270924
cg16080876	3.03E-13	NEFL	-0.30605
cg13206017	9.84E-13	SST	-0.33016
cg13909533	1.52E-12	ELAVL4	0.422007
cg04678336	1.76E-12	SGCG	0.258893
cg01201932	9.19E-12	CMA1	0.35601
cg17215863	1.67E-11	RALYL	-0.3883
cg02739437	1.79E-11	SPOCK3	0.284115
cg24846807	2.26E-11	C1orf173	0.37662
cg20944283	2.61E-11	CADM3	0.321338
cg09442828	3.29E-11	ADRB3	-0.24909
cg12154976	4.28E-11	RASGEF1C	0.325022
cg18420965	4.44E-11	EPHA5	-0.33562
cg00169792	4.91E-11	SALL4	-0.25016
cg14326225	6.54E-11	NPAS4	0.218836
cg15821496	1.42E-10	DLGAP2	0.340402
cg04878685	1.50E-10	PIK3C2G	0.351903
cg11346522	2.10E-10	KCNK2	0.273284
cg05373457	2.41E-10	KCNS2	-0.22132
cg14841350	4.43E-10	IGSF11	0.331318
cg00086346	5.25E-10	ATCAY	0.245883
cg02362508	7.28E-10	NRSN1	0.424155

cg17985972	1.07E-09	PLCXD3	0.258979
cg17641904	1.08E-09	C9orf4	-0.53327
cg23719157	1.20E-09	STRA6	0.212042
cg24221853	1.40E-09	CHST8	0.33361
cg23685102	1.41E-09	BEX1	-0.22123
cg16270399	1.52E-09	LOC284276	0.255213
cg06376426	1.66E-09	GRHL3	0.257673
cg03023935	2.48E-09	NPFFR1	0.228289
cg23290556	3.34E-09	SFTPD	0.232078
cg13857519	5.16E-09	TPH1	0.231394
cg16489926	7.70E-09	CDH19	0.2678
cg19057309	9.82E-09	HCRT	0.207535
cg16204420	1.14E-08	FGF10	0.242727
cg06838365	1.72E-08	LHFPL4	-0.30196
cg26679047	2.20E-08	UNC5D	0.288528
cg14725537	3.61E-08	PLP1	0.23466
cg21336116	3.79E-08	KRT23	0.278616
cg04450501	4.55E-08	SLC6A2	0.309921
cg10397765	4.68E-08	SIX1	-0.30183
cg12738913	7.67E-08	SNTG2	0.302273
cg10251217	7.81E-08	TAT	0.238917
cg14304469	1.25E-07	VSTM2A	-0.34488
cg02853387	1.38E-07	DSCAML1	0.303119
cg14331104	1.89E-07	C9orf79	0.294637
cg17623116	2.22E-07	LRRC3B	0.25408
cg18725544	2.69E-07	PRRT4	0.259735
cg03926852	2.79E-07	LY6G6E	0.239275
cg21501724	2.91E-07	PAK7	-0.24226
cg21769093	3.21E-07	VWC2	0.56328
cg13128117	4.47E-07	PPP1R1A	0.204193
cg24145235	4.52E-07	ELMOD1	0.229482
cg19255241	5.36E-07	OR2W3	0.216483
cg25798600	7.18E-07	MAS1L	0.314041
cg14730445	7.58E-07	SLC5A8	-0.21977
cg17853635	8.91E-07	C6orf155	0.212262
cg24833464	8.92E-07	KRTAP3-1	0.282926
cg08393317	9.76E-07	CACNG7	-0.23777
cg07412254	1.21E-06	LOC84931	0.233561
cg20672477	1.25E-06	PAX4	0.216425
cg27420415	1.37E-06	CNTNAP4	0.428992
cg00735885	1.47E-06	LHFPL1	0.334353
cg23450509	1.96E-06	CPNE4	0.237068
cg16863522	2.19E-06	DPP10	0.516333
cg06484432	2.30E-06	ADAMTS19	0.363003
cg24489015	2.58E-06	LPO	0.355526
cg22888418	2.62E-06	LRAT	-0.38258
cg06008912	3.20E-06	TMEFF2	-0.47979

cg00463631	3.59E-06	GRIA2	-0.25183
cg10402103	4.06E-06	PRHOXNB	0.310466
cg01743841	4.15E-06	CHRNA4	-0.40517
cg10474871	4.33E-06	IL1RAPL2	0.305854
cg03406106	5.03E-06	PKD1L2	0.338519
cg09805172	5.26E-06	SOHLH2	0.388639
cg09070142	5.54E-06	PTPRZ1	0.322026
cg03950120	5.87E-06	KIAA1751	0.247261
cg20133890	6.03E-06	LY6G6E	0.235766
cg18421840	7.02E-06	ADCYAP1R1	0.20045
cg13096208	8.10E-06	ST8SIA3	-0.34708
cg16375358	8.35E-06	CACNG5	0.246247
cg26717554	9.94E-06	ELANE	-0.24674
cg24728018	1.03E-05	CLVS2	-0.27677
cg00321288	1.13E-05	MGAT4C	0.217179
cg10359143	1.22E-05	EPHA6	0.249578
cg08211895	1.85E-05	STON1-GTF2A1L	0.202685
cg01664666	1.95E-05	PLD5	-0.42971
cg27364741	1.97E-05	OTX1	-0.49035
cg27154343	2.14E-05	KCNC2	-0.31806
cg14462017	2.28E-05	SYT4	0.374012
cg19376823	2.50E-05	IL5RA	0.221687
cg25538883	2.52E-05	MAPK4	0.250438
cg03932978	2.54E-05	HMGCLL1	0.24956
cg18388084	2.78E-05	KIF1A	0.280181
cg04048634	3.35E-05	GABRG1	-0.21717
cg19865770	3.35E-05	LOC400804	0.267651
cg14070647	3.43E-05	RSPO2	-0.37986
cg12974660	3.71E-05	HRK	0.352194
cg25782229	5.71E-05	WT1	-0.27129
cg22669120	6.51E-05	KCNA1	0.258584
cg24926711	6.73E-05	HPSE2	-0.31946
cg07502050	7.66E-05	DIRC3	0.399652
cg00463767	8.41E-05	OTX1	-0.23797
cg01089249	8.42E-05	GAD1	-0.22499
cg10623221	9.23E-05	NLGN1	0.34667
cg09044294	0.000103	NRXN1	0.43629
cg15957341	0.000108	SYT9	0.251755
cg20947377	0.000116	PTPRZ1	-0.30583
cg06668555	0.000117	FAM135B	-0.36794
cg22149516	0.000125	SLCO4C1	-0.35606
cg19030579	0.000126	DMRTA2	-0.22498
cg27326452	0.000128	C3orf72	-0.2571
cg22616881	0.000132	DLX6AS	-0.21599
cg03520282	0.000246	FGF20	0.200213
cg20965743	0.000252	ASPG	-0.2157
cg07418387	0.000266	FMN2	0.500857

cg12965599	0.000275	ZIC1	-0.21839
cg11333886	0.000276	DSCAML1	-0.22185
cg09388605	0.000287	XKR4	-0.23648
cg26913669	0.000298	COL11A1	0.325286
cg20587945	0.000335	SEMA3E	0.393803
cg23917513	0.000337	LMX1A	0.353196
cg23229261	0.000399	OTX1	-0.41273
cg07020596	0.000491	CTNNA3	0.250842
cg03991152	0.00055	PGC	0.24955
cg20555674	0.000551	ARL5C	-0.22325
cg08404354	0.000634	HABP2	0.226592
cg16105906	0.000636	ZIC5	-0.24116
cg04276301	0.000684	OTX1	-0.26855
cg25996557	0.000775	FRMPD4	0.225594
cg25415246	0.000883	ONECUT3	-0.24121
cg14328457	0.000913	STAC2	-0.32637
cg25399352	0.000934	TBX5	-0.20792
cg02671603	0.000959	KIAA2022	0.375337
cg07561162	0.00105	GRIN2A	0.226561
cg14403327	0.00108	HCN4	0.255673
cg04956382	0.001085	MYOT	0.338231
cg23757489	0.001107	HTR5A	-0.21058
cg06912272	0.001129	ELAVL3	0.200406
cg02352295	0.001146	SLITRK2	0.379075
cg25103492	0.001365	FGF10	-0.23563
cg25033144	0.00144	KIR3DX1	0.26229
cg03020208	0.001484	AQP5	-0.24508
cg20403031	0.001615	ZNF280A	0.276052
cg04886703	0.001619	BEST4	-0.20313
cg14056110	0.001846	CA10	-0.34546
cg04774103	0.002041	DNER	0.380325
cg24960947	0.002096	GAL3ST3	-0.21934
cg02645340	0.002126	PRHOXNB	-0.2435
cg09400152	0.002166	CPEB1	0.327783
cg08351163	0.002177	DBX2	0.298549
cg06244906	0.002287	ZIM2	0.285334
cg20475114	0.002311	SLC6A19	0.21009
cg06378617	0.002357	KRT23	0.239984
cg10784511	0.002481	AGTR1	0.228963
cg03537215	0.002513	CNTN2	0.273149
cg05802545	0.002544	NTNG1	0.325214
cg03098937	0.002682	CAMKV	-0.2314
cg08271804	0.002683	ZNF492	-0.41441
cg23010538	0.002703	FAM5C	-0.57036
cg10778841	0.002866	SORCS3	-0.25335
cg18423935	0.003006	STXBP5L	-0.25174
cg21472506	0.003065	OTX1	-0.50432

cg10764388	0.003084	AKR1CL1	0.216229
cg17173451	0.003123	SVOPL	0.240847
cg11970703	0.003351	ABCA12	0.210475
cg25188238	0.003458	XKR4	0.329806
cg00163702	0.003824	PKD1L2	0.258378
cg02814558	0.003827	PRRG3	0.363776
cg14743710	0.004314	CDH22	0.243079
cg14243778	0.004743	CNTN1	-0.29266
cg16732787	0.004778	DUSP5P	-0.20289
cg27360326	0.004851	PCDH8	-0.36127
cg24061141	0.005379	TBX20	-0.30557
cg04530015	0.005383	ABCA12	0.298017
cg06812991	0.005493	NPY2R	-0.36196
cg04130427	0.005563	RORB	-0.22587
cg27260772	0.005715	TFAP2B	-0.28184
cg11281641	0.005756	GAD1	-0.49343
cg15225844	0.00579	MYT1L	0.320464
cg26499822	0.005799	CNKSR2	0.406658
cg03513163	0.006046	PCDHB1	-0.2743
cg26251506	0.00641	DLX6AS	-0.21964
cg26075150	0.006559	DLX6AS	-0.27787
cg25971548	0.006718	FFAR1	0.223013
cg21154627	0.007286	SLC7A14	-0.3174
cg05502445	0.007915	DIRC3	0.346773
cg14171414	0.008105	PCDH8	-0.2084
cg19633231	0.00825	CALY	-0.30852
cg03187135	0.008687	OPRM1	0.281709
cg25128583	0.008864	CST2	0.228048
cg22490907	0.009131	TBX20	-0.20086
cg24560494	0.009419	PCDH8	-0.25669
cg25217100	0.00957	C13orf36	-0.28212
cg13226172	0.00978	CNTFR	-0.2948
cg16111924	0.010254	SVOPL	-0.20772
cg05316065	0.010304	GSDMC	0.204376
cg17721710	0.010355	SLC30A10	-0.36768
cg11044716	0.010694	C13orf36	0.336888
cg18833140	0.010741	HABP2	0.279461
cg06495961	0.01118	DPP6	-0.28674
cg01002253	0.01127	NPY5R	-0.2722
cg08900101	0.011306	TBX5	-0.21806
cg23426473	0.011521	EN2	-0.28494
cg18458597	0.011833	CADM2	0.244685
cg04341210	0.012154	C13orf36	0.269149
cg11816202	0.012499	TTY14	-0.47513
cg16158843	0.012521	LHFPL4	-0.22032
cg05211662	0.012534	ADAMTS19	-0.25918
cg00126498	0.012565	ULBP1	-0.30997

cg18807003	0.01259	MYT1L	0.249328
cg13388277	0.01275	ZNF727	0.232187
cg03169018	0.012939	NEFM	-0.26205
cg11438428	0.013102	PTF1A	-0.29251
cg03567151	0.01314	TEX101	0.314003
cg10034890	0.013313	DNER	-0.47223
cg00076307	0.013947	SLC27A6	-0.21576
cg25684999	0.014166	PTF1A	-0.31626
cg12128340	0.014778	LMX1A	0.277174
cg10315366	0.015113	GPR123	0.218311
cg16699354	0.015931	ALK	0.21136
cg20976526	0.01597	RGS22	-0.21192
cg24433477	0.016101	CADM2	0.203425
cg21884231	0.016851	SLC7A14	-0.2658
cg14170313	0.018485	RORB	-0.52025
cg16136098	0.019125	NTNG1	-0.36643
cg10206931	0.019494	SCNN1G	0.389171
cg07015195	0.019791	RSPO2	-0.28952
cg01089319	0.020054	GAD1	-0.24516
cg08422599	0.020622	KCNIP1	-0.30213
cg10192893	0.020912	PHOX2B	-0.24597
cg19179801	0.021544	STAC2	-0.27888
cg17800654	0.021615	DMRTA2	-0.3878
cg10316490	0.021932	FAM5C	-0.43762
cg09233651	0.022064	TBX5	-0.23555
cg10592710	0.023008	COL29A1	0.321788
cg01176516	0.023601	ZNF727	-0.20301
cg04612444	0.024305	PENK	-0.26786
cg07877559	0.024406	CTNND2	-0.24188
cg24319381	0.02494	CPEB1	-0.44868
cg22855255	0.025268	CA10	-0.26209
cg22255773	0.025679	DPP6	0.355295
cg25622366	0.026904	OTX1	-0.4529
cg16374999	0.027432	PRPH	-0.26866
cg16495212	0.027792	CPEB1	-0.27052
cg10068034	0.028506	C6orf186	-0.41303
cg23294090	0.028723	FAM135B	-0.35459
cg15604615	0.029438	PRRG3	0.263122
cg10484958	0.029484	PCDH8	-0.25501
cg23208513	0.030102	RGS22	-0.31265
cg06511917	0.030888	PTF1A	-0.20004
cg20581321	0.03173	CNGA3	-0.34937
cg19670286	0.031952	GFRA3	-0.22895
cg01003815	0.032272	INSL6	0.238617
cg14542334	0.034508	KCNIP1	0.306823
cg03064067	0.034675	SLC6A15	-0.51125
cg27032232	0.034748	DPP6	-0.28826

cg20631104	0.034875	BMP3	-0.29592
cg24384519	0.036937	ADCYAP1R1	0.332302
cg04945331	0.036979	SOX14	-0.37015
cg18568634	0.037233	DLX6AS	-0.21568
cg17567560	0.037332	INA	-0.44139
cg16562730	0.037578	CHST4	0.275654
cg10917619	0.037684	NRXN1	0.289658
cg00493429	0.04078	NLGN1	0.384821
cg23545828	0.041487	GPR26	0.203867
cg26946769	0.042042	MAPK4	0.295803
cg08684639	0.043513	WDR17	-0.47413
cg00452252	0.043803	SCNN1G	0.315455
cg21550785	0.043952	ALK	0.207763
cg08050235	0.04409	INA	-0.38208
cg25481253	0.044303	TAS2R38	0.351263
cg22827685	0.045303	NOS1	0.221372
cg04961466	0.045642	NPY5R	-0.24888
cg03121419	0.045783	DCAF12L1	0.41572
cg14338345	0.046876	DMRTA1	-0.4669
cg14326644	0.047098	ALK	0.35834
cg11630154	0.04778	SOX14	-0.20014
cg25930591	0.047856	DLX6AS	-0.23107
cg18232816	0.048227	SYT10	-0.23716
cg10862354	0.048324	SORCS3	0.29578
cg03928812	0.049833	TCN1	0.37014

Appendix 8.3 – Linear models results from head and neck cancer.

cg	p-value	gene	$\Delta\beta$
cg16001323	2.85E-10	ADH1B	0.220581
cg03222834	3.95E-10	SHISA9	0.221713
cg06757810	3.51E-08	CNGB3	0.255027
cg16638385	3.87E-08	SOST	-0.36403
cg06530558	4.04E-08	UNC13C	0.246499
cg02598319	1.51E-07	C6	0.273996
cg11027140	1.52E-07	GPR144	-0.22937
cg06661450	2.07E-07	LHX9	-0.26031
cg21171320	2.66E-07	TRPM3	0.329005
cg13672800	1.20E-06	C20orf141	0.252993
cg18950108	1.83E-06	DPCR1	0.241631
cg26070020	3.46E-06	LMX1A	0.240514
cg21575295	4.01E-06	DLK1	-0.24076
cg07369569	4.16E-06	HMGCLL1	0.317588
cg06563089	4.29E-06	KCNC2	-0.24092
cg06418867	6.77E-06	C10orf90	0.209798
cg00735885	1.21E-05	LHFPL1	0.326453
cg24566400	1.41E-05	RBP4	-0.2236
cg19112977	2.21E-05	MGC16121	-0.31733
cg13540960	2.26E-05	WT1	-0.21202
cg20646280	2.31E-05	KCTD8	-0.2793
cg12614105	3.26E-05	NPY	-0.2103
cg07075026	3.42E-05	IGF2BP1	-0.22485
cg14033273	4.18E-05	FCN2	0.201114
cg11213520	5.92E-05	LHX5	-0.35434
cg11410023	0.000108	EPHA6	-0.21537
cg19139832	0.000126	CPNE4	0.261773
cg02227188	0.000153	HOXC9	-0.36665
cg22095604	0.000153	NOL4	-0.27108
cg09102610	0.000198	GRID2	0.258573
cg24157814	0.000312	DCT	0.200575
cg22031964	0.000476	CHRM1	-0.27028
cg15175266	0.000521	CDH12	0.298893
cg10143067	0.000525	VAX1	-0.23133
cg14215586	0.000584	HOXC9	-0.23837
cg21945989	0.000689	CSN2	0.25968
cg01942962	0.000822	GRIA2	-0.26531
cg26164184	0.001451	FCN2	0.243503
cg15593298	0.001832	PAQR9	-0.29335
cg23980760	0.002126	ACCSL	0.222524

cg04008252	0.002309	NPFFR2	-0.36082
cg12294121	0.002615	GABRB1	-0.20228
cg08857479	0.002976	HOXC11	-0.22763
cg00003298	0.003066	LHX5	-0.39079
cg14856914	0.003075	RGR	0.218881
cg25724842	0.003706	PACRG	0.342069
cg12907379	0.004186	ZIC5	-0.30102
cg22785561	0.004677	GABRA4	0.245822
cg20631104	0.005657	BMP3	-0.22532
cg09297288	0.005672	GBX2	-0.33209
cg01882260	0.005861	SLITRK3	0.304079
cg17381377	0.006335	ABCC8	-0.25328
cg09205438	0.007994	GABRG3	0.274646
cg15990724	0.008869	NR1H4	0.238553
cg16149574	0.009243	CYP4Z2P	0.257523
cg10679688	0.010314	ZIC5	-0.23422
cg03024760	0.011394	GABRG3	-0.38982
cg16043651	0.011591	ZNF536	-0.22822
cg24500832	0.012437	HOXC9	-0.21275
cg10782668	0.01256	PDX1	-0.23234
cg04315554	0.012988	DPP10	0.260054
cg24846807	0.01309	C1orf173	0.214845
cg17505819	0.013493	RGS7BP	0.273025
cg00796424	0.021914	HOXC11	-0.21334
cg13272644	0.023328	GRIK3	-0.20258
cg25209672	0.024239	SPATA4	0.23667
cg01022087	0.02501	FAM183B	0.217683
cg03827337	0.028337	RGS7BP	-0.25898
cg21383810	0.029095	WIF1	-0.2924
cg04077800	0.030789	NPY2R	0.208365
cg17210837	0.049888	UGT3A1	0.272581

Appendix 8.4 – Linear models results from kidney_R cancer.

cg	p-value	gene	Δβ
cg20610181	4.58E-59	CA9	0.392197
cg04511534	4.89E-52	GGT6	-0.39297
cg00093087	1.33E-45	AQP2	-0.30764
cg18390495	3.76E-44	DEFB132	0.264473
cg03762549	2.73E-42	TMEM61	-0.23926
cg13540480	7.32E-41	C14orf50	-0.28308
cg10888337	8.19E-36	WNT7B	0.385848
cg07795964	3.73E-35	NAT8L	-0.25344
cg08842032	4.41E-31	EPN3	-0.35543
cg14895298	8.66E-31	BIRC7	0.246926
cg06162324	1.04E-29	FXYP4	-0.24078
cg00373436	2.32E-29	TAGLN3	0.347901
cg12792363	1.35E-28	LGALS12	0.20539
cg21504505	5.47E-28	C4orf6	0.246951
cg15567182	3.88E-26	VGLL1	-0.24678
cg13563074	1.74E-25	OVCH2	0.382492
cg24935217	1.76E-25	ELF5	-0.28532
cg14021961	1.37E-24	CLCNKA	-0.22325
cg12924654	6.08E-23	SVOPL	-0.26751
cg10958362	9.74E-23	C5orf38	0.219635
cg13929970	7.41E-22	FGFBP1	-0.23636
cg08568550	4.98E-21	C11orf16	-0.23572
cg10896586	5.03E-21	GPR110	-0.26381
cg03211864	7.16E-21	BTBD16	0.237549
cg16804165	1.92E-20	CKMT1A	0.260035
cg19760241	3.33E-20	LHX1	-0.20536
cg10362335	5.52E-20	TNFSF14	0.201327
cg25649889	9.35E-20	MYO3B	-0.31116
cg16791528	1.39E-19	REG1A	0.265968
cg07798731	1.99E-19	C10orf99	0.27297
cg18565355	2.97E-19	ESRP1	-0.28089
cg09662034	8.60E-18	TFAP2C	0.265822
cg04204669	1.14E-17	TH	0.351222
cg06186790	2.04E-17	PRSS22	0.251014
cg02544502	2.23E-17	HEPACAM2	0.328593
cg21422742	8.55E-17	OVOL2	0.244181
cg05280762	1.17E-16	VSIG1	-0.39831
cg02839195	2.66E-16	GAL3ST3	-0.22113
cg09727050	6.32E-16	TNFAIP6	0.426712
cg04063166	1.81E-15	KCNA4	0.333275

cg27497928	2.07E-15	CLCN1	0.2072
cg14524955	2.22E-15	PADI1	0.213412
cg03441713	3.92E-15	UMODL1	0.208949
cg12221689	4.88E-15	VWA3B	0.370914
cg14622443	8.21E-15	Mar-10	-0.30839
cg17140222	1.37E-14	RAB3B	0.211271
cg21126506	1.88E-14	ESRRB	0.208812
cg26511075	2.04E-14	RANBP3L	-0.4705
cg04592706	2.16E-14	ABCA4	-0.27471
cg16454426	2.30E-14	C8orf22	0.252678
cg06689180	3.80E-14	KCNE1	-0.35808
cg05014103	4.04E-14	SPERT	0.213398
cg15429888	8.43E-14	C11orf86	0.212231
cg06950942	1.96E-13	CLDN19	-0.24597
cg03478199	2.98E-13	GRM1	-0.24157
cg13629358	3.60E-13	ATP10B	-0.22133
cg02100150	4.94E-13	PVT1	0.322644
cg24822127	5.23E-13	FATE1	0.257221
cg06530558	9.53E-13	UNC13C	0.324308
cg14591667	1.71E-12	B4GALNT2	-0.24296
cg11172423	1.75E-12	CLDN19	-0.22144
cg19432362	2.19E-12	SIAH3	-0.21377
cg20054157	3.25E-12	SFTA1P	0.288663
cg15994604	6.10E-12	EHF	0.256752
cg07638689	8.32E-12	FBN3	-0.24174
cg00865429	1.26E-11	CLNK	0.20951
cg10332649	3.56E-11	LYPD6B	-0.22117
cg18335796	3.99E-11	CALB1	-0.283
cg16863522	6.54E-11	DPP10	0.28253
cg18258482	9.94E-11	ROS1	0.236051
cg06429466	1.39E-10	TRPV6	-0.27884
cg26864905	1.81E-10	IL20RA	-0.20369
cg03256938	2.07E-10	FLJ42875	-0.22735
cg19802477	2.26E-10	LILRA4	0.208664
cg12311175	3.07E-10	NDST3	0.212809
cg23075139	3.65E-10	LSAMP	0.222473
cg20928429	4.36E-10	CLDN16	-0.346
cg23682609	4.95E-10	BCAS1	-0.30493
cg12737536	8.31E-10	AKR1CL1	0.30145
cg27080171	9.91E-10	GABRA2	0.257086
cg08390979	1.01E-09	A2BP1	0.210402
cg00780520	2.05E-09	PVT1	0.361001
cg20765441	2.30E-09	SLC17A2	0.337973
cg07269374	2.74E-09	RPSAP52	0.23575
cg05937737	2.94E-09	SLC7A14	-0.26784
cg14845020	4.63E-09	BMP7	0.349471
cg01922613	5.30E-09	ABCA4	-0.2715

cg21217846	5.87E-09	S100A5	-0.27
cg05067125	6.75E-09	S100Z	0.245385
cg22923895	8.60E-09	EMID2	0.297472
cg18285377	9.42E-09	C1orf127	0.203454
cg26405835	1.45E-08	NCRNA00160	0.261641
cg05375002	1.48E-08	TDGF3	0.213602
cg10683527	1.71E-08	NEIL3	0.292828
cg14269301	2.79E-08	MAP3K15	-0.30558
cg02483661	4.58E-08	HES5	0.30749
cg06427867	6.02E-08	CLDN8	-0.42326
cg25063515	7.27E-08	CA10	0.283662
cg21962316	1.24E-07	TGM7	0.204137
cg20485165	1.34E-07	WFDC12	0.212681
cg23160016	1.47E-07	GABRA2	-0.25806
cg09232937	1.62E-07	IRX1	-0.21875
cg24215459	1.79E-07	TNIP3	0.227855
cg22669120	2.39E-07	KCNA1	0.314571
cg05503887	2.71E-07	EHF	-0.20723
cg01952226	3.04E-07	GRHL2	-0.30777
cg19303187	4.72E-07	DLX2	0.266406
cg09443388	5.56E-07	XKR4	0.255845
cg01173650	5.76E-07	RUFY4	0.230729
cg27129048	6.21E-07	ST8SIA2	0.2016
cg09842118	8.71E-07	RNASE3	0.212442
cg04556646	9.80E-07	PHF21B	0.310105
cg09060908	1.66E-06	CAPN8	-0.32927
cg26946769	1.72E-06	MAPK4	0.273145
cg05295584	1.91E-06	AKNAD1	0.256721
cg20971488	1.92E-06	DUSP5P	-0.24487
cg02537838	2.05E-06	C20orf151	-0.43674
cg05897163	2.40E-06	PPP1R1B	0.207108
cg05437823	2.96E-06	TFAP2B	0.307722
cg27300950	3.51E-06	TMPRSS4	-0.31789
cg26582789	4.26E-06	MAP3K15	-0.24633
cg03267220	5.60E-06	FAM184B	0.257214
cg13267718	7.22E-06	KCNJ1	-0.3026
cg24318032	7.42E-06	KRT32	0.229139
cg20678353	7.83E-06	C15orf53	0.258997
cg00458681	9.95E-06	DGCR10	0.421596
cg25503804	1.05E-05	F2	0.401476
cg24580782	1.26E-05	NR0B2	-0.30799
cg14605590	1.54E-05	LOC100128076	0.21616
cg13065504	1.60E-05	PLA2G4F	-0.26374
cg26629942	2.09E-05	CA10	0.272462
cg03761113	2.14E-05	CD5L	0.263854
cg02570298	2.63E-05	OLFM4	0.255375
cg16268165	2.85E-05	UNC5A	-0.2123

cg10690747	3.22E-05	UBASH3A	0.223313
cg18560551	3.69E-05	EHF	-0.31871
cg22162435	6.60E-05	BSND	-0.20837
cg00812246	7.68E-05	BSND	-0.21985
cg23657388	0.000103	EMID2	-0.25447
cg19580810	0.000127	RAB25	-0.4095
cg01020475	0.000152	ATP4B	-0.4279
cg13271963	0.000178	ANKRD2	-0.20662
cg27655935	0.000215	ESRP1	-0.20899
cg15066337	0.000347	CLDN16	-0.24353
cg07906724	0.000348	CHRNA6	0.263382
cg14470998	0.000431	TFAP2B	0.343085
cg13614409	0.000566	C13orf26	-0.34951
cg26350373	0.000661	PLA2G4F	-0.20053
cg11625005	0.000713	TERT	-0.21344
cg13578652	0.00098	UBASH3A	0.229444
cg03415545	0.00108	ADH1C	-0.35911
cg25538883	0.001111	MAPK4	0.205333
cg24570211	0.001159	CTNNA2	0.266602
cg15679829	0.001207	GRHL2	-0.21342
cg03481855	0.001491	PVT1	0.246766
cg25214914	0.001754	RXFP4	-0.2878
cg03095982	0.002339	FAM184B	0.206335
cg01380946	0.002383	EMID2	0.207711
cg19862235	0.002494	HAO1	0.30264
cg08759026	0.002729	MYEOV	0.272104
cg27109461	0.003031	EMID2	-0.27897
cg17616677	0.003184	SEMA3E	0.249984
cg17163168	0.003362	TP73	-0.22952
cg10343327	0.003505	ANKRD2	-0.26857
cg04670857	0.004142	CTNNA2	-0.22302
cg00525383	0.004339	ZIC3	-0.23071
cg01050885	0.004367	NPY	-0.2458
cg09243900	0.004564	RAB25	-0.37088
cg24163360	0.004695	SLC17A2	0.264085
cg12691739	0.004814	CA10	0.213556
cg01189638	0.006706	TNFAIP6	0.248902
cg21097881	0.007515	NPY	-0.29218
cg08823182	0.009936	S100A5	-0.25298
cg07167594	0.012169	DGCR10	0.363497
cg22957898	0.012231	TMPRSS4	-0.2638
cg08642731	0.012489	C10orf71	-0.3673
cg08119452	0.013115	OLFM4	0.362498
cg04350627	0.013217	SEMA3E	0.204059
cg21869609	0.013569	LINGO3	-0.23017
cg22934939	0.016799	ZIC3	-0.21794
cg22383924	0.017619	TP73	0.262214

cg07141504	0.018659	LOC100131551	0.239398
cg13675753	0.019339	KCNJ1	-0.27245
cg07696006	0.020281	CCDC33	-0.20194
cg10899768	0.025117	GRHL2	-0.27875
cg01394349	0.025858	CAPN8	-0.32678
cg10917153	0.02597	PLA2G4F	-0.24662
cg20955836	0.029164	BMP7	0.273227
cg17976205	0.029475	C20orf151	-0.4354
cg15896939	0.030233	RAB25	-0.33134
cg07899060	0.030894	EMID2	-0.40238
cg18677603	0.031376	LOC100131551	0.302969
cg20371378	0.031588	TNNI2	0.290881
cg16661744	0.031886	Mar-10	0.242768
cg15154339	0.032043	ATP4B	-0.26283
cg15119640	0.033316	CAPN8	-0.26161
cg27051318	0.039251	CHRNA6	0.261606
cg14022090	0.040706	EHF	-0.32906
cg17684207	0.041491	LOC285796	-0.32954
cg01942646	0.04175	NR0B2	-0.20039
cg21229979	0.045327	LOC285796	-0.24501
cg03359095	0.04963	C20orf151	-0.3137

Appendix 8.5 – Linear models results from kidney_P cancer.

cg	p-value	gene	$\Delta\beta$
cg22162435	1.52E-53	BSND	-0.25354
cg04389897	1.22E-42	TFAP2A	0.234571
cg10938046	3.56E-39	C6orf223	-0.32845
cg04592706	1.07E-38	ABCA4	-0.22163
cg06162324	4.17E-36	FXYP4	-0.20494
cg06650260	6.94E-31	NR0B2	-0.35102
cg00061039	2.26E-29	F11	-0.25309
cg09075137	1.93E-28	SCEL	-0.28928
cg16146033	2.69E-28	SLC22A8	0.232073
cg00093087	5.22E-28	AQP2	-0.21377
cg16806210	1.52E-26	TTC36	-0.23275
cg07493760	1.40E-24	SLC4A9	-0.2491
cg00144673	9.66E-24	MCCD1	-0.30363
cg03180302	5.62E-22	TTR	-0.26025
cg04562611	6.91E-22	C16orf11	-0.20819
cg20688289	3.36E-21	MUC12	-0.29275
cg26433444	5.93E-21	PI16	-0.20295
cg00498289	1.34E-19	GCKR	0.284709
cg11769400	1.69E-18	PEBP4	0.309562
cg07798731	1.69E-18	C10orf99	0.215545
cg12974660	2.79E-18	HRK	-0.23007
cg19765377	9.55E-18	MAT1A	-0.20512
cg14635269	5.76E-17	LMX1B	0.261714
cg08622198	3.32E-16	CHRM3	0.39448
cg08457421	3.70E-16	PLA2G3	-0.24951
cg24222546	4.12E-16	STRA6	-0.21086
cg14620839	1.47E-15	IFITM5	0.214578
cg13998850	1.89E-15	CPNE6	-0.25859
cg10974219	3.25E-15	MYOCD	0.348175
cg16510654	8.19E-15	C1orf64	-0.21907
cg02704949	9.15E-15	FXYP3	-0.28631
cg22023826	4.80E-14	BMP5	-0.21095
cg10273615	7.53E-14	DGKI	-0.26934
cg22324567	1.37E-13	EBF2	0.204623
cg13178597	2.75E-12	RGS17	-0.22271
cg03890691	6.11E-12	DOC2A	-0.36923
cg20723436	1.25E-11	NXPH2	-0.28381
cg01847344	1.35E-11	C21orf29	0.214946
cg18120259	1.36E-11	LOC100132354	0.211646
cg11945297	1.52E-11	GRHL2	-0.23531

cg06166785	3.21E-11	G6PC	-0.22417
cg24817216	1.09E-09	NKAIN3	-0.22975
cg08207466	1.32E-09	TMEM145	-0.20239
cg25322094	1.49E-09	FSTL4	0.334918
cg14928319	1.67E-09	DNAJC5B	-0.26001
cg26717066	1.89E-09	FSTL4	0.29273
cg17543539	2.02E-09	GATA5	0.207732
cg01853665	2.06E-09	RNASE11	0.254975
cg16697620	3.52E-09	HCRTR1	-0.20663
cg19440734	4.20E-09	CAMP	0.209106
cg09179211	4.41E-09	FAM3B	-0.20971
cg09080173	5.76E-09	PEBP4	-0.21264
cg00061629	7.74E-09	ALX4	0.209323
cg08553601	8.10E-09	RASL11B	-0.20357
cg24831879	9.81E-09	CALML3	-0.26094
cg27651243	1.02E-08	MNX1	-0.20755
cg09728865	1.13E-08	TBL1Y	-0.23452
cg14985891	1.40E-08	CASQ2	0.342418
cg03316570	2.94E-08	LOC100132354	-0.21872
cg06689180	5.32E-08	KCNE1	-0.20335
cg12651286	6.05E-08	MMP20	0.284247
cg12078738	9.88E-08	CGA	-0.20046
cg02537838	9.91E-08	C20orf151	-0.29593
cg12462883	1.00E-07	SLC9A10	0.279918
cg07168810	1.09E-07	KCNJ1	-0.24527
cg07163547	3.05E-07	RXRG	-0.20178
cg05328761	5.34E-07	C4orf26	0.408723
cg22619549	7.52E-07	PKD2L1	-0.25219
cg10816760	9.13E-07	LOC153910	-0.26
cg21348173	1.11E-06	PYY	0.332772
cg15001406	1.87E-06	RIMBP2	0.223853
cg26491818	2.19E-06	RIMBP2	0.223463
cg02097420	2.51E-06	HRG	-0.29143
cg16798252	3.05E-06	FLJ32063	-0.25149
cg09802818	3.79E-06	LOC283404	0.44054
cg14483391	5.92E-06	HTR3D	0.212929
cg03415545	7.46E-06	ADH1C	-0.24366
cg25658983	8.48E-06	SIAH3	-0.22621
cg22731981	9.74E-06	ELF5	-0.23163
cg01519063	2.10E-05	GRHL2	-0.21103
cg07472953	3.10E-05	CSF3	-0.234
cg14069088	3.75E-05	CDKN2BAS	-0.2485
cg16789230	4.97E-05	LOC348840	0.361663
cg16348158	6.61E-05	PRDM16	0.203113
cg03873049	7.40E-05	CAMK2A	-0.21479
cg02159996	7.56E-05	GABRR1	-0.21359
cg04365980	9.31E-05	CLEC3A	0.252371

cg06136702	0.000163	PSORS1C1	0.215022
cg19233001	0.000236	TNNT2	-0.20989
cg08382534	0.000294	SLC38A8	0.522248
cg12456825	0.000303	FBXO40	-0.24269
cg00965643	0.000854	DCDC2B	0.279169
cg24873695	0.001367	PRDM16	-0.32354
cg09605636	0.001436	FLJ32063	-0.27899
cg19026320	0.001715	CLDN8	-0.22555
cg19706803	0.002283	PRDM16	-0.22735
cg16762386	0.002439	NR0B2	-0.2462
cg17741448	0.002871	RPS4Y2	0.262399
cg01525538	0.003273	DUSP5P	-0.28065
cg09990962	0.004845	PRDM16	0.204698
cg25883348	0.005153	TRPM8	0.330021
cg21304163	0.005751	FXYD3	-0.23562
cg02090805	0.006946	PXDNL	-0.22033
cg04052038	0.008548	CLDN8	-0.22313
cg20480642	0.008661	PXDNL	-0.3606
cg22822446	0.009094	C1orf50	-0.30051
cg14097304	0.009601	MNX1	-0.32557
cg24690588	0.013529	C1orf168	-0.2077
cg03583016	0.020238	FLJ32063	-0.30702
cg15981734	0.022865	FLJ32063	-0.34939
cg08018585	0.023987	SIAH3	-0.35167
cg10752406	0.031644	AZU1	0.30576
cg26123256	0.031737	UCN	-0.21498
cg03449456	0.032383	PRDM16	-0.20144
cg19760241	0.034495	LHX1	-0.20226
cg04872399	0.042976	TNNT2	-0.27091
cg08787968	0.044762	WT1	-0.23646
cg16732787	0.049461	DUSP5P	-0.23634
cg12728032	0.049574	ELF5	-0.26358

Appendix 8.6 – Linear models results from liver cancer.

cg	p-value	gene	$\Delta\beta$
cg10479063	2.77E-57	PZP	-0.21781
cg19358195	7.74E-28	RPS6KA6	-0.29931
cg15452017	2.80E-25	COX7B2	0.206903
cg02215603	3.73E-24	HHIP	0.32207
cg14069088	3.99E-24	CDKN2BAS	0.251298
cg00012148	8.24E-22	TINAG	0.263917
cg18918116	1.73E-21	SYT9	0.457577
cg25368212	3.17E-20	SSX1	0.206731
cg13510648	7.64E-19	VCX3A	0.422486
cg20683151	1.04E-17	TM4SF20	0.210898
cg07041214	2.29E-17	OR56A3	0.362194
cg23813564	2.39E-17	MAGEC2	0.280574
cg12311175	3.30E-17	NDST3	0.357156
cg00974523	6.14E-17	PRDM7	0.266883
cg09771429	4.48E-16	LDLRAD1	0.268445
cg25451456	5.79E-16	OR56A3	0.285254
cg11357940	1.17E-15	ZNF716	0.340374
cg04843046	2.26E-15	C9orf4	0.210604
cg22467052	3.34E-15	CFTR	0.297898
cg14484274	2.02E-14	IGF2BP1	0.248216
cg10683527	2.80E-14	NEIL3	0.272365
cg08599475	2.88E-14	IL20RA	0.258865
cg17616453	3.21E-14	C21orf62	0.241398
cg04570669	7.74E-14	ODAM	0.203107
cg21860285	2.16E-13	CPA6	0.232298
cg11188031	4.28E-13	HAVCR1	0.205134
cg08741952	5.25E-13	ISX	0.232432
cg00515905	6.26E-13	EPS8L3	0.213253
cg01882260	7.50E-13	SLITRK3	0.230147
cg05626117	9.50E-13	CLEC4G	0.273349
cg22165105	1.11E-12	TINAG	0.25925
cg06563300	1.13E-12	SLC17A8	-0.20989
cg22799510	1.32E-12	PROK2	0.257835
cg05553756	1.40E-12	DDX53	0.217905
cg25831075	1.42E-12	SLITRK3	-0.25561
cg13275724	1.66E-12	LOC100133469	0.202263
cg02057755	2.04E-12	AGBL4	0.331545
cg26197836	2.38E-12	PLP1	0.371881
cg14781189	4.08E-12	KCNH7	-0.24549
cg17079431	4.46E-12	CPA6	0.21384

cg25032595	5.66E-12	CLDN10	-0.47839
cg03170472	8.06E-12	CWH43	0.267436
cg24629438	8.34E-12	TRIM71	0.203788
cg16033633	1.75E-11	ZIC5	-0.22692
cg03755794	2.27E-11	TIMD4	0.263153
cg11957331	2.35E-11	TMEM145	-0.29185
cg10598596	3.49E-11	KLK10	0.28528
cg20495476	4.18E-11	SLC5A1	0.247952
cg09286599	5.02E-11	CLEC4GP1	0.268872
cg17545399	6.39E-11	FRMPD2	0.218518
cg16424196	7.31E-11	FAM150A	0.307806
cg17641904	9.94E-11	C9orf4	-0.48215
cg07177437	1.03E-10	ITLN1	0.263064
cg18766795	2.09E-10	FAM5B	0.357367
cg13659051	2.30E-10	LRRC26	0.304835
cg16525987	2.80E-10	C13orf26	0.265265
cg26068292	3.85E-10	CCBE1	0.309545
cg01414185	8.30E-10	HOXD4	-0.20604
cg23631932	8.68E-10	PXDNL	0.246564
cg10910685	9.32E-10	COX7B2	0.289569
cg07010687	1.04E-09	SLC6A19	0.307022
cg09361748	1.11E-09	CALN1	0.340302
cg19411919	1.61E-09	SSX6	0.297572
cg11110686	2.03E-09	MAGEC1	0.294482
cg15957341	2.10E-09	SYT9	0.293831
cg10941721	3.28E-09	MAGEB1	0.374051
cg15167807	3.46E-09	MAGEB2	0.270108
cg03734323	3.49E-09	GDF2	0.235732
cg20939319	4.14E-09	TEX15	0.262502
cg26060665	5.58E-09	FRMPD2	0.250103
cg13585985	7.35E-09	RFPL4B	0.219617
cg27281882	7.36E-09	PAK7	0.353996
cg10397765	8.08E-09	SIX1	-0.40676
cg26101428	8.10E-09	SLCO6A1	0.210306
cg05576619	8.44E-09	ST8SIA6	0.225198
cg14441891	8.94E-09	SLC28A3	0.217636
cg24887265	9.92E-09	SIX2	-0.27305
cg07471018	1.21E-08	COX7B2	0.431972
cg10272176	1.24E-08	PRSS22	0.207327
cg05522559	1.28E-08	PAGE2	0.2054
cg14592807	1.83E-08	SMEK3P	0.218959
cg01516033	1.96E-08	ISX	0.267845
cg27105634	2.04E-08	HBD	0.322613
cg07369569	2.11E-08	HMGCLL1	0.262273
cg16562730	2.20E-08	CHST4	-0.21113
cg14381673	2.26E-08	SLITRK2	0.27401
cg16105591	2.57E-08	CPLX2	0.25109

cg00290944	2.61E-08	PAGE2B	0.203499
cg02466815	3.49E-08	HOXD1	-0.29572
cg14044640	3.81E-08	HOXA6	-0.23838
cg10816760	4.81E-08	LOC153910	0.220263
cg26117778	6.62E-08	LOC100133469	0.290273
cg25661884	6.74E-08	RDH8	0.21667
cg10276834	7.36E-08	CHRM2	0.370787
cg27281765	1.01E-07	PMP2	0.320714
cg20038038	1.04E-07	LILRA3	0.251941
cg22274414	1.08E-07	TUBA3C	0.223673
cg08124867	1.15E-07	NAA11	0.207054
cg14622659	1.97E-07	BMP5	0.371799
cg14837896	2.73E-07	THBS4	0.216352
cg01428589	3.45E-07	RGS9BP	-0.2745
cg02478708	3.56E-07	FCAR	0.288845
cg11615959	5.06E-07	CLEC4M	0.396261
cg04205664	6.60E-07	CLEC2L	0.374585
cg03513858	6.82E-07	FAM83B	0.420505
cg07856521	7.16E-07	CALN1	0.286702
cg05499890	8.02E-07	AMPD1	0.232043
cg10116904	8.03E-07	FAM5C	0.329288
cg09299053	8.28E-07	ZNF716	0.326727
cg00617568	1.06E-06	B4GALNT2	0.23004
cg24714905	1.72E-06	ZIC2	-0.27358
cg22540233	2.16E-06	CLDN8	0.292039
cg23984446	2.39E-06	OR5AK2	0.325514
cg22785561	2.62E-06	GABRA4	0.228369
cg04481779	3.73E-06	IL20RA	-0.20865
cg03757053	4.00E-06	MAGEB1	0.238411
cg26674943	4.06E-06	ISL2	-0.33389
cg22079902	4.71E-06	PRDM9	0.230858
cg14349144	5.36E-06	LOC84740	0.272032
cg09923953	6.73E-06	KLK11	0.28145
cg25329377	7.24E-06	CSMD1	0.231367
cg03729889	7.52E-06	MYO18B	0.218472
cg23006065	7.62E-06	SYT9	0.248396
cg17158811	7.79E-06	SSX1	0.324377
cg24742746	8.26E-06	ZIC2	-0.29414
cg19929006	1.06E-05	VWDE	0.357285
cg17797848	1.38E-05	MYBPHL	0.266038
cg22460204	1.52E-05	POU6F2	0.283602
cg25455659	1.56E-05	KCNG3	0.285103
cg08023692	1.63E-05	TFDP3	0.250754
cg26842423	2.11E-05	DPP10	0.203236
cg27420415	2.30E-05	CNTNAP4	0.237107
cg02558162	2.47E-05	CRABP1	0.203123
cg12032246	2.51E-05	PAGE4	0.225436

cg25272655	2.61E-05	HIST3H2BB	-0.22842
cg08331840	3.06E-05	KCNU1	0.24787
cg23097402	3.22E-05	DMRTA2	-0.22061
cg20333412	3.29E-05	MAGEC2	0.303467
cg23748514	3.30E-05	PPAPDC1A	0.299891
cg15837235	4.15E-05	PRIMA1	0.245653
cg24338843	4.21E-05	C1orf158	0.2226
cg03655683	4.29E-05	OTX1	-0.31287
cg17725129	4.52E-05	FGF23	0.343505
cg05257372	4.70E-05	MAGEC2	0.439785
cg15231809	4.88E-05	ANKRD30B	0.296061
cg03928924	5.70E-05	GAGE12J	0.248558
cg20685897	7.67E-05	CR1L	-0.22332
cg14479463	7.70E-05	ELAVL2	0.242054
cg23793961	7.71E-05	CLEC4C	0.338088
cg14515517	8.24E-05	MYO3A	0.40163
cg14966325	8.61E-05	SPRR2A	0.468963
cg23325997	0.0001	CLEC1B	0.298914
cg18434354	0.000102	LOC84931	0.232149
cg23109018	0.000121	GJA10	0.24496
cg02868468	0.000121	C14orf180	0.278339
cg00589161	0.000127	PHACTR3	0.359844
cg22778014	0.000133	COL25A1	0.202965
cg24414383	0.000135	KRTAP1-1	0.233816
cg09795588	0.00014	PTF1A	-0.24152
cg11074070	0.000153	CTNNA2	0.213184
cg01901466	0.000159	CHGA	0.212032
cg17937340	0.000159	COL6A6	0.354928
cg18543993	0.000166	DCAF4L2	0.309448
cg02153334	0.000166	TERT	0.216279
cg11100640	0.000167	MKRN3	0.241908
cg02786019	0.000236	TRPV6	0.239009
cg14560435	0.000254	LINGO2	0.250949
cg10733677	0.000279	CTAG2	0.214835
cg07086592	0.000284	DCAF4L2	0.299462
cg22223402	0.000292	FAM55D	0.268297
cg26981076	0.000309	MS4A3	0.229081
cg07851521	0.000332	TSPY2	0.275974
cg24240626	0.000336	REG3A	0.208875
cg13939549	0.00034	DACH2	0.250789
cg25182501	0.000341	DQX1	0.263947
cg11348701	0.000352	GAD1	0.214165
cg14751679	0.000361	CSMD1	0.316717
cg12760869	0.000366	C1QL4	-0.24193
cg16812660	0.000379	GPRIN2	0.316725
cg00517849	0.000394	ODZ3	0.37315
cg22238777	0.000414	STAB2	0.255303

cg06690689	0.000422	CNGB3	0.208754
cg01120434	0.000427	GPR123	0.215707
cg05171952	0.000438	PITX1	-0.27547
cg02837027	0.000471	DCC	0.282589
cg16144476	0.000509	NXF5	0.26482
cg26164184	0.000548	FCN2	0.295573
cg25794766	0.000588	ZNF695	-0.22284
cg06656105	0.000603	TRPV6	0.312576
cg17593414	0.000616	TFDP3	0.215725
cg04637490	0.000642	XAGE5	0.232489
cg03693842	0.000654	GABRA3	0.260783
cg20261915	0.000664	GLP2R	0.20569
cg13570487	0.000669	TRPV6	0.260212
cg07816271	0.000688	DGCR10	0.268193
cg14772660	0.000807	SLC5A7	0.350161
cg13552831	0.000832	TRPM5	0.241785
cg13067649	0.000875	COL6A6	0.277965
cg00665114	0.000905	TNR	0.302798
cg13935480	0.000911	WNT3A	0.33928
cg09079168	0.001017	ZNF679	0.266244
cg23689428	0.001026	LOC84931	0.237226
cg27237541	0.001038	MYO3A	0.387002
cg20640749	0.001146	GLP1R	0.276764
cg10172210	0.001169	MAGEB2	0.294731
cg22980483	0.001214	CTNNA2	0.223862
cg02528400	0.001255	CSMD1	0.230464
cg27611699	0.001261	ATP13A4	0.373619
cg20927661	0.001458	SOX11	-0.25032
cg00009553	0.001463	CDH8	0.215194
cg17299712	0.00161	MAGEB2	0.251196
cg12338417	0.00175	TRIM71	-0.21132
cg00944166	0.001778	SLCO6A1	0.289483
cg11761200	0.001809	REG1A	0.309717
cg20377305	0.00181	DLX5	-0.22477
cg22374268	0.001835	CARD18	0.240391
cg19404723	0.001847	DLGAP2	0.314638
cg16071125	0.001884	DPP10	0.358664
cg24931138	0.001892	TERT	0.271806
cg03931619	0.0019	MAGEC1	0.29664
cg21298444	0.001918	CBLN2	0.310537
cg19521511	0.002001	ZNF716	0.263696
cg05829782	0.002017	VSX2	-0.2148
cg10821830	0.002039	CTNNA2	0.201404
cg05118455	0.002085	CACNA1E	0.296821
cg08889347	0.002182	ATP13A4	0.324903
cg09585906	0.002243	CHRM2	0.286322
cg03954858	0.002307	FAM83F	0.235088

cg27209571	0.002399	DNER	0.227867
cg17346345	0.002444	CTNNA2	0.225673
cg16980530	0.00248	BMP10	0.267466
cg05422096	0.002582	ANKFN1	0.208224
cg12471044	0.00278	LOC731789	0.202931
cg22657351	0.002782	MARCO	0.309899
cg00443797	0.002903	PPAPDC1A	0.250258
cg25979373	0.002925	ODZ3	0.30717
cg07205753	0.002937	DLGAP2	0.293262
cg18432768	0.002959	KCNJ16	0.370181
cg22502715	0.002987	ZNF695	-0.30116
cg08277486	0.003036	CCDC144NL	0.209724
cg18718692	0.003207	BFSP2	0.217188
cg00887153	0.003421	CHST4	-0.25024
cg10010103	0.003451	DPP10	0.256286
cg08387538	0.003478	DLGAP2	0.497749
cg02981003	0.003507	GPR123	0.276352
cg21462299	0.003527	VGLL1	0.332993
cg21935402	0.003608	HCN1	0.254657
cg12365177	0.003661	WNT2	0.331183
cg21780600	0.003804	BMPER	0.329476
cg08625617	0.003989	CSMD1	0.292419
cg14958947	0.004252	TERT	0.222475
cg14591419	0.004289	TEX101	0.29591
cg22052586	0.004346	DDX53	0.213108
cg26722684	0.004348	OR13A1	0.329652
cg04425614	0.004433	C14orf180	0.244689
cg16483466	0.004452	C20orf186	0.265948
cg16480969	0.004521	GRM4	0.246951
cg18504196	0.004834	C3orf50	0.234101
cg09822482	0.004938	C1orf125	0.22667
cg02026371	0.005177	NUDT10	0.343374
cg24932457	0.005197	TNR	-0.33001
cg21690167	0.005291	KCNJ16	0.374813
cg04774103	0.005317	DNER	0.289719
cg23260456	0.005361	DPP10	0.350943
cg04316624	0.005588	HOXD3	-0.23445
cg20682720	0.005616	COL9A1	0.360611
cg02903436	0.005863	PGK2	0.269449
cg04227026	0.00627	FATE1	0.2306
cg14009729	0.006345	GRIN1	0.273612
cg17752799	0.00649	CHRM2	0.413916
cg16916688	0.006523	GRM4	0.234881
cg03595083	0.006559	CSMD1	0.21712
cg05708385	0.00659	CLDN10	0.210559
cg00134787	0.006648	MYH1	0.224299
cg05992726	0.00677	PDZRN4	0.317364

cg20682236	0.007161	SLITRK6	0.28474
cg22654504	0.007831	ODZ3	0.356487
cg12707907	0.008111	SLITRK6	0.313229
cg17975443	0.008249	TBX4	-0.24859
cg27297441	0.008258	GPR123	0.360597
cg27040976	0.008261	TUBA3C	0.224255
cg18690705	0.008343	CTNNA2	0.276365
cg03935379	0.008422	TERT	0.200649
cg09938674	0.008588	DLGAP2	0.237004
cg07909692	0.008835	PDZRN4	0.364895
cg01916429	0.008968	CYP19A1	0.253973
cg09044294	0.009367	NRXN1	0.334436
cg10828127	0.009538	DSCAM	0.421753
cg23682822	0.009578	GLB1L3	0.264814
cg00552087	0.009744	CSMD1	0.386687
cg09826973	0.009868	UBL4B	0.233399
cg10191891	0.009896	C7orf71	0.333265
cg13391675	0.010329	CTNNA2	0.241342
cg15726040	0.010487	DPP10	0.287549
cg21192979	0.010823	SLC7A4	0.31366
cg04711063	0.010898	BMPER	0.231063
cg05535113	0.01169	CHST4	-0.20803
cg26841013	0.011766	WNT3A	-0.40068
cg09256281	0.011879	CTNNA2	0.307204
cg18803856	0.012112	DLGAP2	0.239713
cg12269374	0.012129	CSMD1	0.313718
cg10776919	0.012397	DMRTA2	-0.24568
cg09063835	0.01261	PHACTR3	0.22657
cg03815683	0.012626	CDH8	0.336491
cg04350627	0.013385	SEMA3E	0.278282
cg05047411	0.013765	MAGEA8	0.223598
cg09362722	0.013767	CHRM2	0.343813
cg09486642	0.01398	TRPV6	0.249328
cg07856761	0.014001	PVALB	0.207602
cg14267645	0.01454	STRA8	0.203541
cg14782206	0.014837	CPA6	0.301408
cg09966303	0.015096	CNTNAP4	0.264913
cg05630943	0.015616	CNTNAP4	0.345863
cg24657817	0.01573	BEND4	-0.3733
cg23626475	0.01589	ABCB5	0.321336
cg05033341	0.016373	FAM83F	0.229944
cg05436231	0.016578	CD164L2	-0.24907
cg07346177	0.016827	DLGAP2	0.290928
cg25449412	0.016922	DLGAP2	0.261096
cg26012050	0.017366	PCSK2	0.376292
cg06065695	0.017518	CTNNA2	0.301062
cg15835058	0.017792	GLP1R	0.258431

cg23344136	0.017935	ODZ3	0.303671
cg03932978	0.018309	HMGCLL1	0.207525
cg17001717	0.018439	CSMD1	0.223853
cg25300234	0.018481	ERBB4	0.38653
cg07032446	0.018707	CSMD1	0.27297
cg06172732	0.018831	GAST	0.203496
cg23875663	0.018937	PCSK2	0.20947
cg25164237	0.020195	KCNK9	0.237795
cg26086902	0.020353	MYH13	0.275104
cg21472506	0.020379	OTX1	-0.48845
cg13985252	0.020451	TEX101	0.225322
cg04458776	0.020653	SLC22A6	0.24508
cg18520517	0.020762	ZNF280A	0.221659
cg16595607	0.021161	OTX1	-0.25941
cg19762533	0.021182	POU6F2	0.369309
cg08389130	0.021216	TEX101	0.233517
cg00290340	0.021428	IGDCC3	0.211845
cg16455444	0.021648	KCNK9	0.309639
cg21406402	0.021788	LOC84931	0.201698
cg27315635	0.021895	KCNJ9	0.289954
cg23027521	0.022468	ZNF695	-0.2345
cg23218431	0.022709	PHACTR3	0.307008
cg13996593	0.022811	DNER	0.333587
cg23892439	0.023578	POU6F2	0.294685
cg10859133	0.023774	OTX1	-0.25363
cg00563495	0.023831	STRA6	0.20511
cg17112707	0.024133	CCBE1	0.239219
cg00400832	0.024284	DLX5	-0.21779
cg04223420	0.024468	PITX1	-0.4218
cg20057676	0.025511	ZIC2	-0.22936
cg18249634	0.025703	TRIM71	-0.26879
cg19114576	0.025909	KRT20	0.283823
cg03537537	0.026479	DCAF4L2	0.377075
cg20073553	0.026707	NKX3-2	-0.24629
cg20012537	0.026711	GPR123	0.212062
cg10158850	0.026723	TERT	0.230024
cg06873461	0.027571	DPP10	0.351015
cg26426186	0.027809	KCNK9	0.33888
cg20011604	0.027847	TUBA3C	0.208507
cg00543869	0.027907	SLC7A4	0.341505
cg06162589	0.027937	SLC5A8	0.200878
cg15186616	0.028176	DLGAP2	0.226671
cg26465522	0.02825	MAGEC2	0.413607
cg05137662	0.028458	OPN1MW	0.293099
cg12234272	0.029432	TFF2	0.308697
cg14366110	0.029708	FIBCD1	0.221521
cg25950377	0.02987	SMEK3P	0.366259

cg05617002	0.031887	DPP10	0.228422
cg11955474	0.032227	CD164L2	-0.28721
cg24613097	0.032741	TMEM132C	0.275995
cg00246768	0.033303	CSMD1	0.280903
cg27532754	0.033653	GPR123	0.267994
cg13781096	0.033803	SSX3	0.241971
cg02772379	0.033949	ACTL8	0.265479
cg11796258	0.034122	TNR	0.309849
cg17733836	0.034276	CTNNA2	0.240864
cg08158518	0.034276	SPSB4	0.309414
cg18885992	0.035047	FAM83E	0.286597
cg07725033	0.035348	LOC285629	0.322262
cg01037726	0.035357	PNCK	0.245927
cg09472467	0.035661	GABRA5	0.239411
cg11176493	0.035976	WNT3A	-0.27723
cg02901136	0.036097	S100A12	0.373121
cg21305926	0.036103	MAG	0.210422
cg14321918	0.037117	C3orf50	0.289424
cg05844832	0.037721	ERBB4	0.368221
cg11388802	0.03832	CACNA1E	0.266942
cg17124844	0.038352	DLGAP2	0.25114
cg19679544	0.038474	GABRA5	0.24378
cg03794862	0.038816	WNT2	0.285721
cg02192678	0.038857	DLGAP2	0.329624
cg07176410	0.039099	CPA6	0.245711
cg26299044	0.040804	KRT12	0.281724
cg15020132	0.040839	BMPER	0.33727
cg20164479	0.040937	MYH8	0.253769
cg02447488	0.041935	CD164L2	0.226886
cg14528916	0.042237	CACNA1E	0.327074
cg07769622	0.042623	SMEK3P	0.260623
cg03774724	0.04264	CTNNA2	0.207259
cg21385983	0.042764	PVALB	0.228402
cg13003527	0.042804	DPP10	0.343696
cg00176740	0.043657	POU6F2	0.3653
cg21924070	0.043668	SPSB4	0.248963
cg13606025	0.04402	KCNJ16	0.315866
cg01620077	0.044023	PGK2	0.26031
cg00629116	0.044206	PRND	0.237641
cg10557827	0.044603	DLGAP2	0.291223
cg11701372	0.044625	DSCAM	0.386508
cg16023283	0.044681	LOC100133469	0.360614
cg04112471	0.044932	SPSB4	0.308557
cg24102702	0.046058	C14orf180	0.255636
cg01003961	0.046189	SP8	-0.26163
cg07247409	0.046633	COL24A1	0.236186
cg01154272	0.048212	DLGAP2	0.228806

cg26452811	0.048288	IGDCC3	0.273611
cg13715631	0.048373	PITX1	-0.22195
cg20911707	0.048448	CSMD1	0.260154
cg21844331	0.048551	NUDT10	0.270609
cg26362078	0.048611	CDH9	0.334729
cg14241045	0.049549	CACNA1B	0.222489
cg20984053	0.049618	MNX1	-0.22781
cg27056972	0.049733	SSX3	0.276485
cg05340803	0.049883	DSCAM	0.397064

Appendix 8.7 – Linear models results from lung cancer.

cg	p-value	gene	$\Delta\beta$
cg09250199	6.49E-66	BRDT	0.220186
cg13563074	6.98E-32	OVCH2	0.20996
cg22031964	8.67E-29	CHRM1	-0.26321
cg22779330	4.06E-25	MYEOV	0.240294
cg11188031	6.01E-22	HAVCR1	0.260925
cg04765207	6.99E-22	MAGEA2	0.202749
cg06376426	6.74E-19	GRHL3	0.232265
cg09647108	2.35E-15	CD300LG	0.21715
cg14001023	3.37E-15	PGLYRP1	-0.37401
cg01392518	6.42E-15	T	-0.21839
cg18768582	1.61E-14	HBG1	0.227375
cg12559170	9.96E-14	HBG2	0.236123
cg19255241	3.17E-13	OR2W3	0.204607
cg09907509	3.03E-12	C13orf36	-0.24086
cg24748769	8.20E-12	OTX2	-0.28092
cg16856286	1.12E-11	HOXC13	-0.2703
cg18423935	1.20E-11	STXBP5L	-0.20456
cg11781718	1.54E-11	HIST1H4E	-0.23744
cg26610167	1.62E-11	PTPRH	0.264197
cg06463958	3.18E-11	T	-0.28895
cg03536474	3.77E-11	HOXC11	-0.26592
cg07854132	5.78E-11	OVCH1	0.295935
cg19924352	8.79E-11	FAM83A	0.283771
cg23507945	1.06E-10	IL22RA2	0.277952
cg10122477	1.37E-10	GLB1L3	-0.24199
cg13791254	1.55E-10	FOXE1	-0.29702
cg01708273	2.70E-10	HOXD11	-0.36336
cg16413687	3.67E-10	ALX1	-0.20881
cg26451345	6.72E-10	GPR115	0.254274
cg09000583	1.31E-09	HOXB13	-0.22931
cg00143249	1.32E-09	MNX1	-0.22715
cg00633740	1.94E-09	EDN3	0.209821
cg21836358	3.20E-09	FOXD3	-0.27473
cg26336935	4.47E-09	KRT16	0.212712
cg21174841	6.15E-09	FOXE1	-0.2127
cg20011402	6.23E-09	ST8SIA6	-0.20335
cg02650767	1.09E-08	OR2B11	0.268447
cg16464328	1.20E-08	SLC4A1	0.208331
cg01743841	2.07E-08	CHRNA4	-0.31328
cg18451814	2.22E-08	OTX2	-0.32747
cg15082028	2.46E-08	PAX7	-0.20933

cg21769093	2.64E-08	VWC2	0.254508
cg06850283	3.39E-08	FGF10	-0.24702
cg19134945	4.25E-08	PITX2	-0.23684
cg06404175	4.37E-08	OXT	-0.25186
cg01847754	4.81E-08	CXorf1	0.275742
cg17305181	5.30E-08	CRH	-0.23344
cg00853940	5.56E-08	TRPM8	-0.24645
cg01175020	5.59E-08	TLX1	-0.21105
cg26560222	6.59E-08	DMRTA2	-0.23922
cg26494929	7.01E-08	KREMEN2	-0.27919
cg03981954	8.40E-08	FEZF1	-0.27553
cg20663376	1.02E-07	TRPM1	-0.2327
cg25555059	2.25E-07	SLC27A6	-0.21701
cg02498177	2.35E-07	SALL1	0.221546
cg15067015	2.61E-07	TNR	0.266646
cg22212237	2.67E-07	C1QL4	-0.21569
cg02943604	3.64E-07	PPAPDC1A	-0.21661
cg26745764	4.05E-07	GLB1L3	-0.21216
cg00765312	5.49E-07	ALX1	-0.20022
cg26205771	5.92E-07	NPBWR1	-0.28956
cg08307469	6.29E-07	GDNF	-0.27642
cg26222437	7.85E-07	FRMPD4	-0.22529
cg15841063	8.14E-07	FOXD3	-0.23227
cg08871608	8.45E-07	CNTD2	-0.21766
cg23426473	9.36E-07	EN2	-0.20886
cg11761200	9.89E-07	REG1A	0.258153
cg20939084	1.12E-06	ZIC4	-0.20945
cg10418524	1.26E-06	HOXD13	-0.22245
cg16226642	1.56E-06	OR5P3	0.214346
cg23348723	1.63E-06	C7orf16	0.225586
cg13549845	2.03E-06	GRID2	-0.21333
cg06319822	2.14E-06	HBM	-0.20765
cg14425564	2.18E-06	LHX2	-0.35424
cg20268857	2.24E-06	OR6K3	0.240733
cg03752741	2.67E-06	SH3GL3	0.260511
cg09388140	2.87E-06	DLX6AS	-0.2014
cg07462540	3.21E-06	NXPH1	-0.21513
cg04590119	4.29E-06	CHRM2	0.266889
cg18682226	4.83E-06	CALN1	0.234919
cg10085326	4.98E-06	MMP13	0.223022
cg04063166	5.50E-06	KCNA4	0.203015
cg13663644	6.62E-06	DMRT3	0.235842
cg20400904	7.58E-06	TCN1	0.204248
cg00396667	7.89E-06	PITX1	-0.41368
cg08858649	7.93E-06	TRIM15	-0.29168
cg04899175	1.15E-05	NOS1	-0.26712
cg22496102	1.41E-05	CRABP1	-0.21831

cg16201038	1.90E-05	CDX2	-0.24267
cg25287257	1.93E-05	MNX1	-0.2465
cg07974511	2.40E-05	OTX1	-0.43191
cg02898293	2.52E-05	VSX1	-0.21573
cg25756435	2.57E-05	MAST1	-0.20587
cg22717014	2.66E-05	PITX2	-0.34143
cg08911275	3.18E-05	HOXD13	-0.30127
cg19653212	4.07E-05	GUCA1A	-0.32009
cg23097402	5.41E-05	DMRTA2	-0.36043
cg03771840	5.92E-05	TRIM15	-0.28541
cg24340081	6.80E-05	NKAIN3	-0.26424
cg21865150	8.67E-05	HOXB13	-0.31867
cg02037307	0.000114	PITX1	-0.414
cg14239515	0.000122	SPRED3	-0.232
cg16723800	0.000161	TAF7L	-0.29545
cg16355785	0.000162	GABRA1	-0.21511
cg26668276	0.000164	DLX6AS	-0.20983
cg10835584	0.00017	ONECUT2	-0.22232
cg00463767	0.000179	OTX1	-0.24128
cg05462543	0.000212	EN2	-0.23058
cg09528825	0.000216	GSG1L	-0.21069
cg08594218	0.000226	HOXB13	-0.32035
cg26004759	0.000231	UCP1	-0.25263
cg13413955	0.000259	DMRT1	-0.32119
cg04917446	0.000277	HOXB9	-0.24818
cg07442479	0.000301	GDNF	-0.22613
cg21488538	0.000334	CNGA3	-0.36803
cg16108684	0.000368	DCAF12L2	-0.215
cg21732056	0.000382	OR5P2	0.221152
cg25830182	0.000437	NKX6-1	-0.24404
cg08166767	0.000471	LCE2A	0.216363
cg23467079	0.000471	FAM83A	-0.25722
cg24561661	0.000643	HOXD11	-0.25529
cg07135614	0.000805	FOXL2	-0.31698
cg15443952	0.000812	C7orf52	-0.21242
cg09796544	0.00083	DUSP9	-0.26167
cg18040901	0.000925	HOTAIR	-0.22808
cg17507671	0.000968	PITX2	-0.2279
cg09781994	0.000978	PITX2	-0.24863
cg12422154	0.001031	TRIM15	0.278956
cg07937271	0.001055	NKX3-2	-0.21038
cg01089319	0.001094	GAD1	-0.23496
cg24933645	0.001106	SLC30A10	-0.28356
cg00028935	0.001301	ZIC4	-0.27112
cg07235577	0.001358	SNTG1	0.233358
cg19715410	0.001507	OPRD1	-0.2513
cg11854928	0.002005	NOS1	0.284812

cg00445405	0.002127	OTX1	-0.2369
cg17028067	0.002193	LPA	0.209466
cg02715629	0.002359	FAM83A	0.285872
cg16205854	0.002541	EDN3	-0.20091
cg16100530	0.002569	SH3GL3	0.208457
cg06051311	0.002602	TRIM15	0.345049
cg10641615	0.002794	HOTAIR	-0.21211
cg02653559	0.002865	ZIC4	-0.26553
cg08393041	0.00327	ZIC4	-0.28158
cg10709593	0.003506	DLX1	-0.25585
cg01002253	0.003675	NPY5R	-0.21298
cg16327839	0.00374	SPATA19	0.248954
cg05922610	0.003758	NR2E1	-0.2775
cg14544666	0.003811	RASGEF1C	-0.25203
cg02772121	0.003878	TRIM15	0.433325
cg07010617	0.004286	PRSS1	0.211362
cg22639011	0.004335	KCNA4	-0.21636
cg04223420	0.004389	PITX1	-0.40357
cg24721899	0.005264	NKX3-2	-0.26717
cg05771518	0.005311	HOXC13	-0.22596
cg24837370	0.005566	SOX11	-0.27735
cg15435730	0.006256	TFAP2D	-0.20274
cg11975608	0.006305	LPA	0.216767
cg25622366	0.006783	OTX1	-0.4309
cg09005679	0.006809	EDN3	-0.22308
cg17840707	0.00801	AGBL1	0.222821
cg19846314	0.008119	GAD1	-0.21323
cg09140665	0.008186	OR10A3	0.209992
cg22304522	0.008415	ADCY8	0.299396
cg17495130	0.008419	HOXD13	-0.21259
cg02849693	0.008708	PRKCG	-0.23684
cg24154839	0.008986	GABRA4	-0.32869
cg26090020	0.009482	C17orf102	0.248038
cg23757446	0.010773	ONECUT2	-0.25207
cg27406678	0.012135	NKX6-1	-0.20932
cg22190437	0.013439	SPHKAP	-0.25144
cg22829917	0.013479	HOTAIR	-0.23439
cg24381587	0.013977	OR6N1	0.311438
cg08490115	0.014802	KCNA4	-0.25982
cg17787134	0.015277	IGF2BP1	-0.30872
cg17444738	0.015646	NKX6-1	-0.21557
cg16781647	0.016046	EMX1	-0.20309
cg10968815	0.016123	BPIL1	0.207512
cg19922137	0.016555	SYT14	-0.31437
cg06942701	0.01741	TBR1	-0.21407
cg12118269	0.018431	TLX1	-0.25088
cg16732616	0.018559	DMRTA2	-0.46003

cg23874437	0.019494	SPRED3	-0.26289
cg14127859	0.01971	BARX1	-0.22015
cg01003961	0.020332	SP8	-0.23199
cg17093995	0.02077	VWC2	-0.27167
cg07676859	0.020912	SSTR4	-0.41195
cg15126544	0.024809	GAD1	-0.27874
cg15285250	0.025237	NXPH1	-0.30532
cg13491584	0.025259	FOXI3	-0.20283
cg00079219	0.025856	HOTAIR	-0.20877
cg18824990	0.026221	HOTAIR	-0.20518
cg25775494	0.026955	NR2E1	-0.22941
cg17800654	0.027176	DMRTA2	-0.3305
cg01146232	0.02842	SALL1	-0.20819
cg25800765	0.028608	ALX1	-0.28077
cg18421840	0.034106	ADCYAP1R1	0.210585
cg20731469	0.035527	NR2E1	-0.23879
cg20104341	0.03621	HOXC13	-0.23463
cg26567423	0.038775	FLJ12825	-0.33245
cg03972665	0.039219	PITX2	-0.20556
cg00945234	0.039244	DMRTA2	-0.22815
cg16557178	0.039994	HOXB13	-0.20139
cg03767515	0.040168	HOXA11	-0.20837
cg22711111	0.042173	TRIM15	-0.24649
cg04846243	0.043234	IGF2BP1	-0.22799
cg25951981	0.044147	GABRA4	-0.2978
cg15310492	0.046975	KCNA4	-0.23878
cg12001304	0.048686	SPHKAP	-0.28526
cg03733219	0.049107	SPRED3	-0.28167

Appendix 8.8 – Linear models results from thyroid cancer.

cg	p-value	gene	$\Delta\beta$
cg23620049	2.02E-80	LIPH	0.395704
cg08328750	5.28E-68	KRT15	0.301609
cg23449588	2.80E-51	ODAM	-0.24032
cg01120874	4.11E-47	FIBCD1	0.246318
cg12403889	7.35E-44	C1orf187	0.29036
cg12747410	4.93E-41	MS4A15	0.243905
cg03255783	1.19E-38	ESPN	0.203088
cg01802532	6.36E-37	NMU	0.220388
cg26451345	2.74E-36	GPR115	0.225346
cg01853665	6.79E-33	RNASE11	0.293323
cg04473405	1.06E-28	KRT85	0.302716
cg05368724	5.22E-24	FAM178B	0.392065
cg25959149	7.48E-24	BANF2	-0.24894
cg22717825	2.77E-16	PLA2G2E	0.363055
cg03448202	2.95E-16	MYBPH	0.339292
cg13394864	4.40E-15	FAM178B	0.247012
cg22669120	7.87E-15	KCNA1	0.220851
cg15442792	5.90E-14	MUC21	0.356811
cg16745930	3.82E-13	HPSE2	0.334905
cg20695587	1.48E-11	TMPRSS11F	0.264511
cg25388882	1.69E-07	C1orf180	0.343183
cg19316579	1.54E-06	HPSE2	-0.22036
cg19856444	1.54E-05	SLC39A12	0.267767
cg02196805	5.18E-05	CSF2	0.305573
cg18959422	5.21E-05	MYBPH	0.228813
cg18122696	0.000195243	SYT8	0.303202
cg23904115	0.000263497	AWAT2	0.282977
cg18512357	0.000522331	AWAT2	0.284466
cg27053580	0.011304771	AWAT2	0.220893
cg07538160	0.016720134	MUC21	0.364995
cg09575189	0.045546075	SYT8	0.25799