

**Supplementary**

**Table S1** Cox regression analysis of identified genes using KM plotter web-tool

Group	Probe	Symbol	Univariate				Multivariate (stage, gender, and smoking history included)			
			HR	Lower CI	Upper CI	P	HR	Lower CI	UpperCI	P
Lower pro group	221060_s_at	TLR4	0.88	0.70	1.12	0.3092	1.37	0.89	2.09	0.1521
	213475_s_at	ITGAL	0.86	0.68	1.09	0.2032	0.84	0.54	1.29	0.425
	210140_at	CST7	0.96	0.75	1.21	0.7038	0.91	0.59	1.41	0.6862
	210031_at	CD247	1	0.79	1.27	0.9687	1.12	0.73	1.73	0.5994
	34210_at	CD52	0.76	0.6	0.97	0.025	0.64	0.41	1.01	0.0539
	213915_at	NKG7	0.9	0.71	1.14	0.3881	0.91	0.59	1.42	0.679
	224451_x_at	ARHGAP9	0.77	0.56	1.05	0.094	0.68	0.26	1.76	0.424
	211339_s_at	ITK	0.85	0.67	1.07	0.17	1	0.65	1.53	0.9979
	206715_at	TFEC	0.89	0.7	1.13	0.3319	1.16	0.76	1.78	0.4912
	211742_s_at	EVI2B	0.76	0.6	0.96	0.021	0.79	0.52	1.21	0.2725
Higher pro group	213721_at	SOX2	0.8	0.63	1.01	0.065	1.01	0.66	1.54	0.9569
	201092_at	RBBP7	0.92	0.73	1.17	0.4917	1.05	0.69	1.6	0.8222
	221796_at	NTRK2	0.8	0.63	1.01	0.0652	0.65	0.42	1.01	0.053
	204369_at	PIK3CA	0.86	0.68	1.1	0.23	1.13	0.74	1.72	0.5719
	201820_at	KRT5	1	0.79	1.27	0.9969	0.67	0.44	1.03	0.0674
	209421_at	MSH2	0.95	0.75	1.2	0.6655	1.46	0.96	2.22	0.0804
	221558_s_at	LEF1	0.67	0.53	0.85	0.001	0.74	0.49	1.13	0.1666
	204023_at	RFC4	0.91	0.72	1.16	0.4463	1.26	0.83	1.92	0.2818
	211834_s_at	TP63	0.81	0.64	1.02	0.077	0.85	0.55	1.3	0.4445
	209849_s_at	RAD51C	1.03	0.81	1.3	0.8238	1.12	0.73	1.7	0.6057
Lower worsen group	201466_s_at	JUN	1.11	0.88	1.41	0.387	0.96	0.63	1.46	0.8455
	200863_s_at	RAB11A	1.16	0.91	1.47	0.2251	1.61	1.05	2.47	0.0295
	213307_at	SHANK2	1.04	0.82	1.31	0.7737	1.14	0.75	1.74	0.5347
	215506_s_at	DIRAS3	1.12	0.89	1.42	0.3416	1.06	0.7	1.62	0.7786
	220276_at	RERGL	1.17	0.93	1.49	0.1838	1.16	0.76	1.78	0.4864
	32811_at	MYO1C	0.92	0.73	1.17	0.52	1.48	0.97	2.26	0.0689
	219027_s_at	MYO9A	1.07	0.84	1.35	0.6	1.18	0.78	1.81	0.4341
	206271_at	TLR3	1.05	0.83	1.33	0.67	1.17	0.77	1.79	0.4586
	213578_at	BMPR1A	1.06	0.84	1.34	0.62	1.03	0.67	1.58	0.9017
	205923_at	RELN	1.02	0.81	1.3	0.84	1.06	0.7	1.61	0.791
Higher worsen group	201000_at	AARS	1.08	0.85	1.37	0.5272	1.4	0.91	2.14	0.1266
	208758_at	ATIC	1.26	1	1.6	0.0535	1.32	0.87	2	0.1978
	202870_s_at	CDC20	1.12	0.89	1.42	0.3446	1.66	1.08	2.57	0.0217
	217294_s_at	ENO1	1.19	0.94	1.5	0.1549	1.51	0.99	2.32	0.0577
	218305_at	IPO4	1.19	0.94	1.5	0.1529	1.18	0.78	1.8	0.4324
	200840_at	KARS	1.47	1.16	1.87	0.0015	1.3	0.85	1.98	0.2331
	200650_s_at	LDHA	1.21	0.95	1.53	0.12	1.77	1.15	2.74	0.0098
	201037_at	PFKP	1.12	0.88	1.42	0.36	1.27	0.84	1.94	0.2551
	201251_at	PKM	1.13	0.89	1.42	0.33	1.4	0.92	2.14	0.1194
	212048_s_at	YARS	1	0.79	1.27	0.9996	1.21	0.8	1.84	0.3684