

	Net-Cox (Co-expression)				Net-Cox (Functional Linkage)				L_2 -Cox
$\lambda \setminus \alpha$	0.01	0.1	0.5	0.95	0.01	0.1	0.5	0.95	1
1.00E-05	-1864.85	-1815.99	-1757.76	-1738.40	-1743.75	-1737.62	-1737.21	-1737.16	-1737.16
1.00E-04	-1679.82	-1674.76	-1673.94	-1674.51	-1676.93	-1674.08	-1674.48	-1674.55	-1674.57
1.00E-03	-1679.54	-1679.82	-1682.17	-1683.10	-1684.17	-1683.17	-1683.17	-1683.16	-1683.16
0.01	-1684.64	-1685.13	-1685.70	-1685.86	-1685.83	-1685.87	-1685.87	-1685.87	-1685.87
0.1	-1686.06	-1686.12	-1686.19	-1686.20	-1686.20	-1686.20	-1686.20	-1686.20	-1686.20
1	-1686.22	-1686.23	-1686.24	-1686.24	-1686.24	-1686.24	-1686.24	-1686.24	-1686.24

(a) TCGA (Death)

	Net-Cox (Co-expression)				Net-Cox (Functional Linkage)				L_2 -Cox
$\lambda \setminus \alpha$	0.01	0.1	0.5	0.95	0.01	0.1	0.5	0.95	1
1.00E-05	-1852.04	-1811.50	-1743.35	-1720.91	-1716.86	-1719.15	-1719.45	-1719.49	-1719.49
1.00E-04	-1646.91	-1643.78	-1640.72	-1640.31	-1641.27	-1640.34	-1640.33	-1640.31	-1640.31
1.00E-03	-1637.96	-1637.75	-1638.81	-1639.16	-1639.12	-1639.21	-1639.19	-1639.19	-1639.19
0.01	-1639.21	-1639.42	-1639.65	-1639.71	-1639.72	-1639.71	-1639.71	-1639.71	-1639.71
0.1	-1639.72	-1639.75	-1639.77	-1639.78	-1639.78	-1639.78	-1639.78	-1639.78	-1639.78
1	-1639.78	-1639.78	-1639.79	-1639.79	-1639.79	-1639.79	-1639.79	-1639.79	-1639.79

(b) TCGA (Recurrence)

	Net-Cox (Co-expression)				Net-Cox (Functional Linkage)				L_2 -Cox
$\lambda \setminus \alpha$	0.01	0.1	0.5	0.95	0.01	0.1	0.5	0.95	1
1.00E-05	-688.278	-664.544	-636.620	-628.431	-628.626	-627.972	-627.923	-627.915	-627.914
1.00E-04	-609.226	-607.624	-607.875	-608.731	-608.774	-608.776	-608.809	-608.808	-608.808
1.00E-03	-614.060	-615.075	-617.393	-618.362	-617.574	-618.352	-618.422	-618.430	-618.430
0.01	-620.219	-620.674	-621.198	-621.356	-621.152	-621.353	-621.365	-621.366	-621.366
0.1	-621.593	-621.649	-621.708	-621.725	-621.709	-621.724	-621.726	-621.726	-621.726
1	-621.749	-621.755	-621.761	-621.762	-621.761	-621.762	-621.762	-621.762	-621.762

(c) Tothill (Death)

	Net-Cox (Co-expression)				Net-Cox (Functional Linkage)				L_2 -Cox
$\lambda \setminus \alpha$	0.01	0.1	0.5	0.95	0.01	0.1	0.5	0.95	1
1.00E-05	-1189.16	-1151.98	-1100.86	-1084.93	-1083.45	-1083.75	-1083.88	-1083.97	-1083.98
1.00E-04	-1034.87	-1032.66	-1033.95	-1035.84	-1037.06	-1036.08	-1035.82	-1036.02	-1036.02
1.00E-03	-1047.89	-1048.83	-1054.09	-1056.52	-1057.19	-1056.74	-1056.70	-1056.70	-1056.70
0.01	-1061.51	-1062.72	-1064.45	-1064.99	-1064.60	-1065.01	-1065.02	-1065.02	-1065.02
0.1	-1065.74	-1065.93	-1066.15	-1066.21	-1066.20	-1066.21	-1066.22	-1066.22	-1066.22
1	-1066.29	-1066.31	-1066.33	-1066.34	-1066.34	-1066.34	-1066.34	-1066.34	-1066.34

(d) Tothill (Recurrence)

	Net-Cox (Co-expression)				Net-Cox (Functional Linkage)				L_2 -Cox
$\lambda \setminus \alpha$	0.01	0.1	0.5	0.95	0.01	0.1	0.5	0.95	1
1.00E-05	-927.861	-877.529	-802.693	-776.750	-776.285	-775.239	-775.162	-775.168	-775.172
1.00E-04	-661.654	-656.089	-649.612	-648.112	-649.213	-648.141	-648.050	-648.039	-648.039
1.00E-03	-644.371	-644.733	-646.189	-647.230	-647.418	-647.339	-647.265	-647.287	-647.317
0.01	-648.411	-649.340	-650.544	-650.894	-650.847	-650.928	-650.919	-650.917	-650.917
0.1	-651.169	-651.329	-651.496	-651.537	-651.552	-651.541	-651.540	-651.540	-651.540
1	-651.568	-651.585	-651.602	-651.606	-651.608	-651.607	-651.607	-651.607	-651.607

(e) Bonome (Death)

L_1 -Cox		
Dataset (Event)	λ	CVPL
TCGA (Death)	0.0712	-1678.97
TCGA (Recurrence)	0.0972	-1635.34
Tothill (Death)	0.0861	-607.737
Tothill (Recurrence)	0.1308	-1049.45
Bonome (Death)	0.2319	-649.301

(f) L_1 -Cox

Dataset (Event)	Group Lasso				Sparse-Group Lasso ($\alpha=0.5$)			
	25 Clusters		100 Clusters		25 Clusters		100 Clusters	
	λ	CVPL	λ	CVPL	λ	CVPL	λ	CVPL
TCGA (Death)	3.44E-04	-1685.97	5.09E-04	-1685.92	4.19E-04	-1685.98	5.51E-04	-1685.94
TCGA (Recurrence)	4.07E-04	-1639.76	5.49E-04	-1639.75	4.45E-04	-1639.71	6.94E-04	-1639.73
Tothill (Death)	8.36E-04	-621.603	9.28E-04	-621.502	8.64E-04	-621.609	9.61E-04	-621.522
Tothill (Recurrence)	1.42E-03	-1066.03	1.74E-03	-1066.00	1.71E-03	-1066.05	1.74E-03	-1066.00
Bonome (Death)	2.05E-03	-651.525	2.05E-03	-651.475	2.04E-03	-651.516	2.04E-03	-651.468

(g) Group Lasso and Sparse-Group Lasso

Table S3