

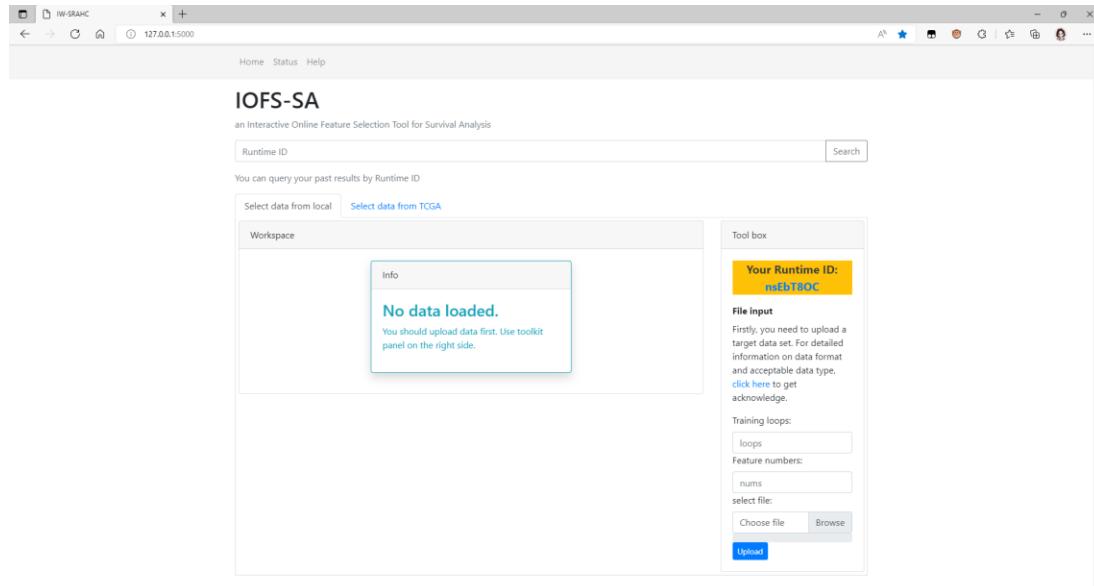
# IOFS-SA Supplementary materials

## 1. Web tool usage instructions

IOFS-SA is a web tool, which means all your operations can be done just in the web browser. Figure S1 is the overall look of IOFS-SA. There are three items in the navigation bar:

- **Home** The homepage of IOFS-SA
- **Status** Includes a history of all runtime's status
- **Help** The user manual of IOFS-SA

And a main panel contains a workspace on the left and a toolbox on the right laying below the headline.



**Figure S1:** An overall look of IOFS-SA

### 1.1 Dataset preparation

For users who use TCGA dataset which has been embedded in this tool, this part is not important. For users who want to upload their own dataset from local, please notice the following tips:

- Currently, this tool only supports excel datasheet, you can upload a file with .xlsx

extension only.

- Rows denote samples and columns denote samples' status and features.
- First column is the name of each sample, and the first row is the name of status, lifetime and features. Leave the cell (row1, col1) as blank, samples and features must have their names.
- Cells from (row2, col2) and behind are treated as data areas. The second column is the sample's survival status, where 0 indicates censored and 1 indicates dead. The third column is the sample's survival time, and the suggested units are days and weeks. The fourth and subsequent columns are the gene expression values or other feature values.
- To change a dataset, you need to refresh the web page.

Figure S2 gives an instant view of what the dataset looks like.

A	B	C	D	E	F	...
1	status	lifetime	feature1	feature2	feature3	...
2	sample1	0	112	1.887		
3	sample2	1	19	0.119		
4	sample3	1	21			
5	sample4	1	23			
6	sample5	0	107			
7	sample6	0				
8	sample7	1				
9	sample8					
10	sample9					
11	...					
12						

**Figure S2:** Format of the dataset

## 1.2 Feature selection

After uploading the data to the server or selecting the TCGA dataset, a list of all available features is shown in the table, and you can view the feature selection results.

- The "Automatic feature selection" button will display the feature selection results
- Feature selection is performed automatically by the program. The check box only displays the results.
- The "download" button will export a table showing the name and ID of the selected

feature.

- The column "item name" is a search field, you can use the search box at the top of the form to view the selection results of the features you want to.
- The "confirm" button will cluster the selected features hierarchically and display the tree view, heat map and lifetime scatter plot.

The process of feature selection is shown in Figure S3.

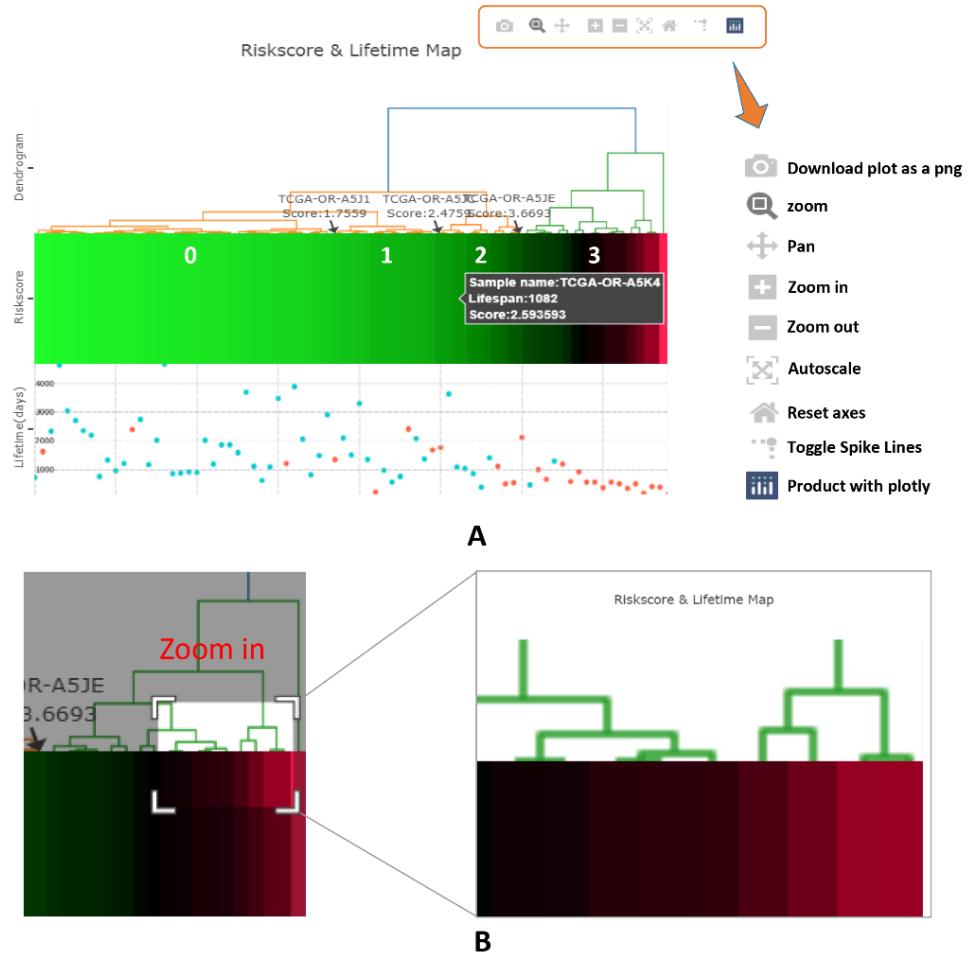
The screenshot shows a user interface for feature selection. At the top, there are two buttons: 'Confirm' (green) and 'Automatic feature selection' (blue, highlighted with an orange box). To the right of these are a 'Search' input field, a magnifying glass icon, and a download icon. Below this is a table with two columns: 'Item ID' and 'Item Name'. The 'Item ID' column contains checkboxes. The 'Item Name' column lists various items. Rows 3372 and 3373 have checkboxes checked and are highlighted with an orange box. Row 3375 also has its checkbox checked. Arrows point from the 'Automatic feature selection' button to the checked checkboxes in rows 3372 and 3373, and from the download icon to the bottom right corner of the table.

Item ID	Item Name
<input type="checkbox"/> 3371	CDC7
<input checked="" type="checkbox"/> 3372	CDCA2
<input checked="" type="checkbox"/> 3373	CDCA3
<input type="checkbox"/> 3374	CDCA4
<input checked="" type="checkbox"/> 3375	CDCA5
<input type="checkbox"/> 3376	CDCA7L
<input type="checkbox"/> 3377	CDCA7

**Figure S3:** Automatic feature selection

### 1.3 Interactive sample division

The result of projective clustering is shown on the webpage in an active figure called *Lifetime & riskscore map*, users need to interactively divide samples into groups according to not only the dendrogram branches but also the boundaries of different colored blocks in the heatmap and the lifetime scatter plot.



**Figure S4:** Riskscore & Lifetime map and cursors

If you hover the mouse pointer over the heat map, a pop-up prompt containing the sample's name, risk score and survival time shows. Sample division can be done by clicking the mouse in the right place, by doing so, you are actually annotating the split line between groups. There are several kinds of cursors and control buttons (Figure S4(A)) to give you a further ability to view this figure and decide where to split. For example, in Figure S4(B), you can draw a rectangle on the map using the second cursor and zoom into that area to have a closer look of the dendrogram's branches.

After a division of groups is done, click "Confirm" button. Here's something that you should know:

- Groups are numbered from left to right, starting from 0.
- At least split into two groups.
- To view Kaplan-Meier curves of different grouping cases, click "Clear" button first, then split samples into groups in a different way and click "Confirm" button. **This**

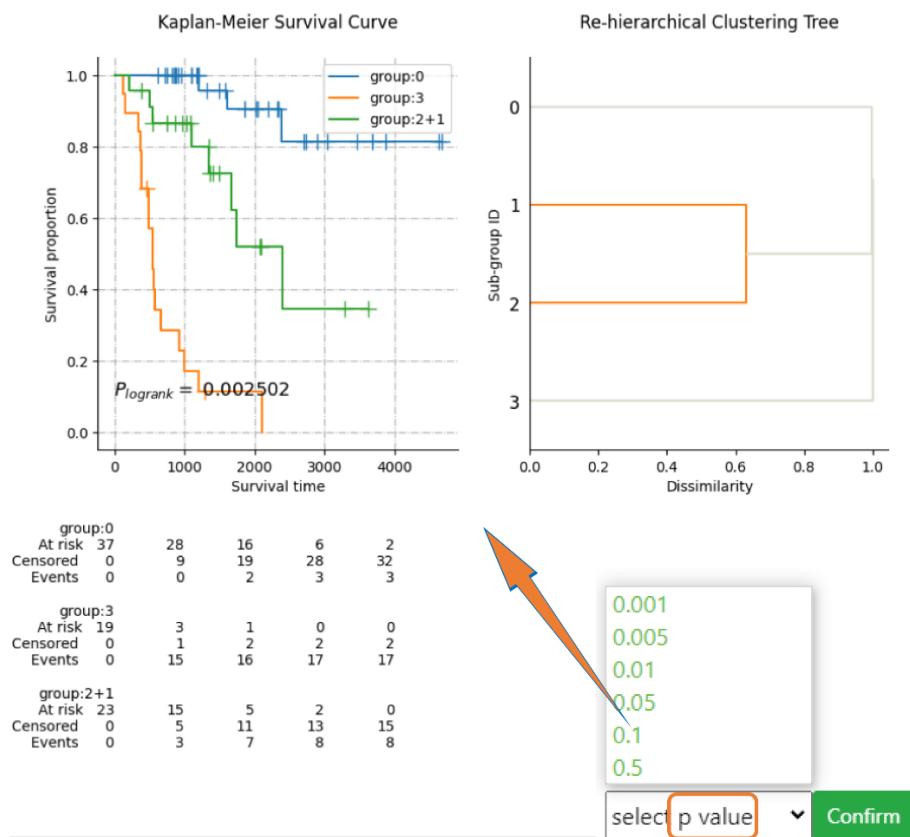
**operation will erase previous results on the web page, so please make sure that you've saved all important results.**

After the re-clustering, a Kaplan-Meier curve will be shown. Click right mouse button on the Kaplan-Meier curve, and choose "save as image" on the context menu to save the figure.

#### 1.4 Automatic re-clustering

After grouping, the user can view the Kaplan Meier diagram and the automatic regrouping class results.

- The default merged p-value is 0.05, and the user can adjust the p-value in the lower right corner of figure S5.
- The current maximum p-value will be displayed in the Kaplan Meier survival curve, and its upper right corner will prompt the merging status of the group.



**Figure S5:** Kaplan-Meier Curve and Re-hierarchical Clustering Tree

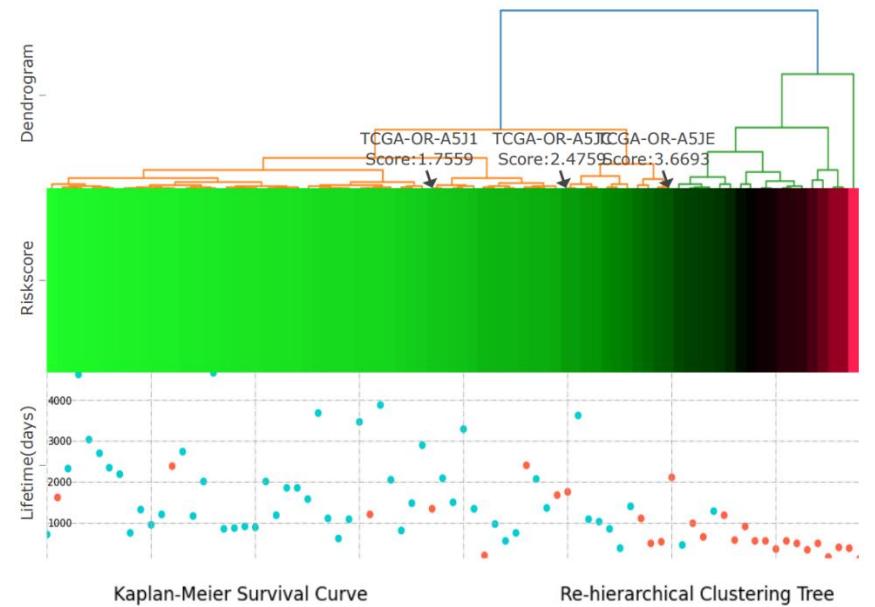
## 2. The results of TCGA Data

### TCGA-ACC

mRNA(19558)-10000-5

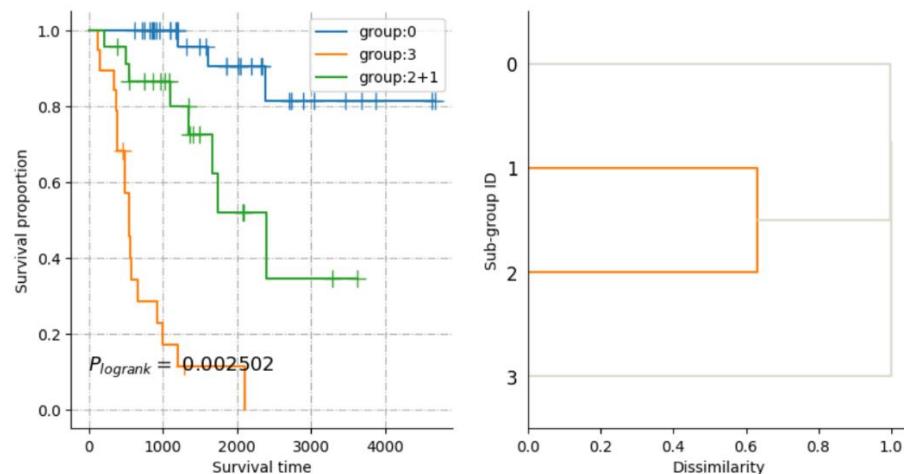
ID	Name	ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
481	AKAP12	3367	CDC45	5543	EPR1	8859	KIF18A	12953	PKMYT1	17792	TROAP
1645	BUB1	3372	CDCA2	6074	FANCI	9378	LMNB1	13071	PLK1	18204	UHRF1
1750	C11orf82	3373	CDCA3	6490	FOXM1	11141	MYLK2	15041	SDC4P		
1907	C15orf42	3375	CDCA5	7323	GSG2	11300	NCAPD2	15317	SGOL1		
2145	C1orf135	3421	CDK1	7441	H2AFX	11301	NCAPD3	16168	SPAG5		
3072	CCDC18	3527	CENPM	7575	HELLS	11389	NDC80	16207	SPC25		
3345	CDC20	5126	DTL	8856	KIF15	11904	NUF2	16505	STMN1		

Riskscore & Lifetime Map



Kaplan-Meier Survival Curve

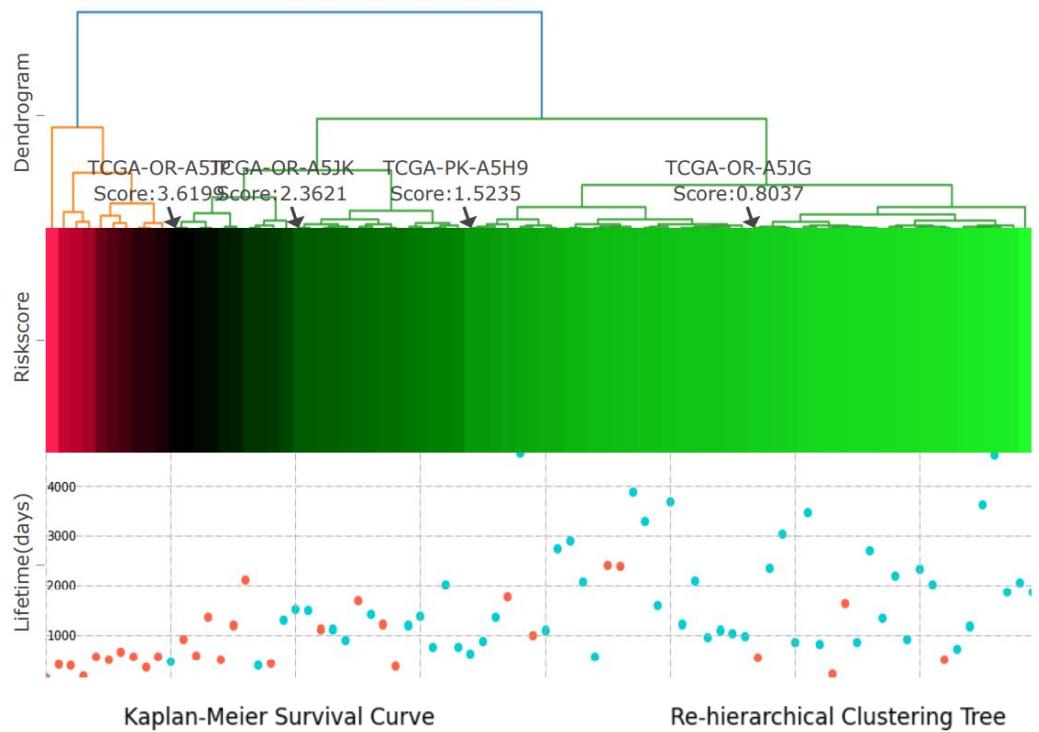
Re-hierarchical Clustering Tree



## microRNA(804)-20000-5

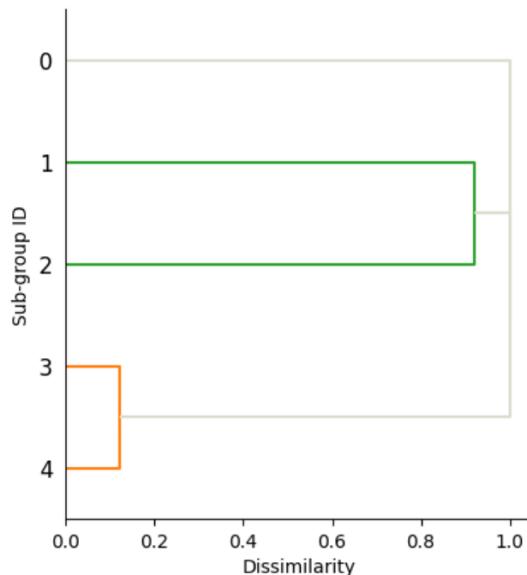
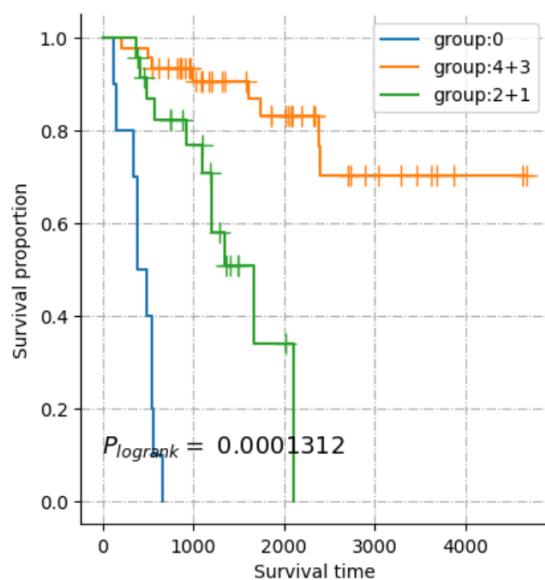
ID	Name	ID	Name	ID	Name	ID	Name
21	hsa-mir-106b	176	hsa-mir-18a	268	hsa-mir-301b	487	hsa-mir-3917
61	hsa-mir-1255a	184	hsa-mir-1911	281	hsa-mir-31	659	hsa-mir-550a-2
95	hsa-mir-1286	198	hsa-mir-197	396	hsa-mir-3605	782	hsa-mir-92b
115	hsa-mir-1307	205	hsa-mir-19a	410	hsa-mir-3619		
117	hsa-mir-130b	225	hsa-mir-2115	413	hsa-mir-3622a		
141	hsa-mir-146b	241	hsa-mir-223	433	hsa-mir-3662		

Riskscore & Lifetime Map



Kaplan-Meier Survival Curve

Re-hierarchical Clustering Tree

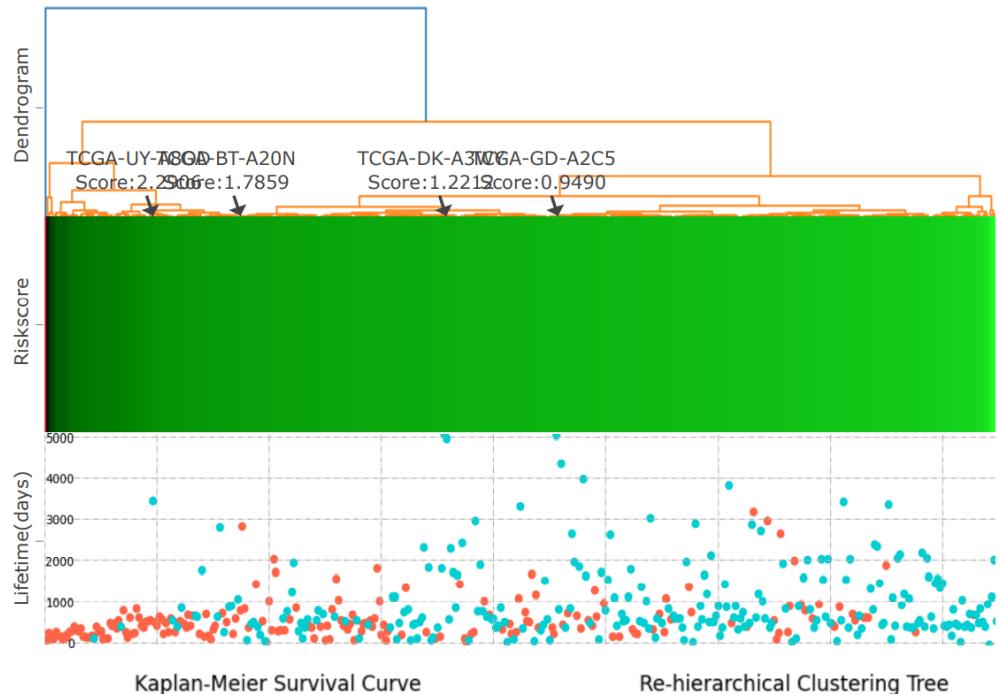


## TCGA-BLCA

mRNA(20195)-50000-1

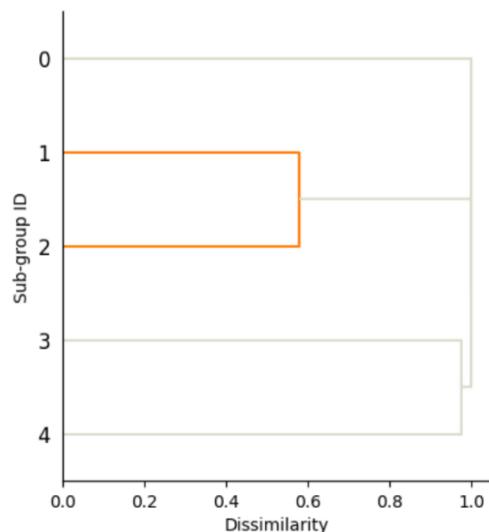
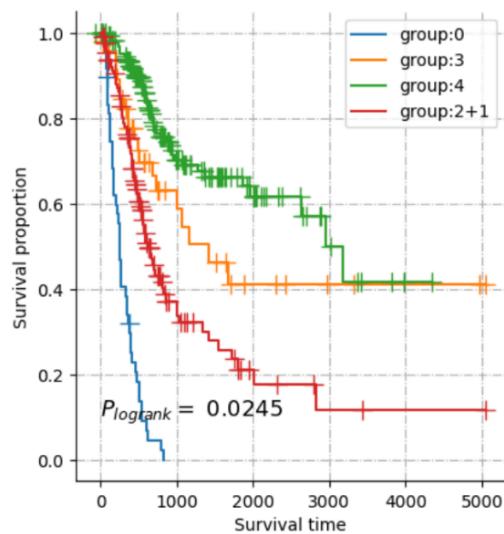
ID	Name	ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
91	ABCC9	2908	CALU	6066	FAM49A	10342	LTBP1	12976	PCDHGA2	17057	STEAP4
276	ADAM23	3292	CD109	6540	FN1	11333	MXRA7	13862	PPP2R3A	17136	STXBP6
455	AHNAK	3608	CERCAM	7448	GSDMB	11524	NBAS	14583	RASGEF1C	18321	TRIM26
1859	C14orf128	4680	DCAF8L2	8695	KANK4	11738	NES	15322	RUNX2	18322	TRIM27
2002	C17orf39	5349	EDNRA	9511	LHFP	12295	OPN1MW	16839	SPNS1	18624	TUBGCP5
2647	C6orf62	5411	EHBPI	9599	LMO1	12344	OR11L1	16933	SRPX	18786	UCHL5

Riskscore & Lifetime Map



Kaplan-Meier Survival Curve

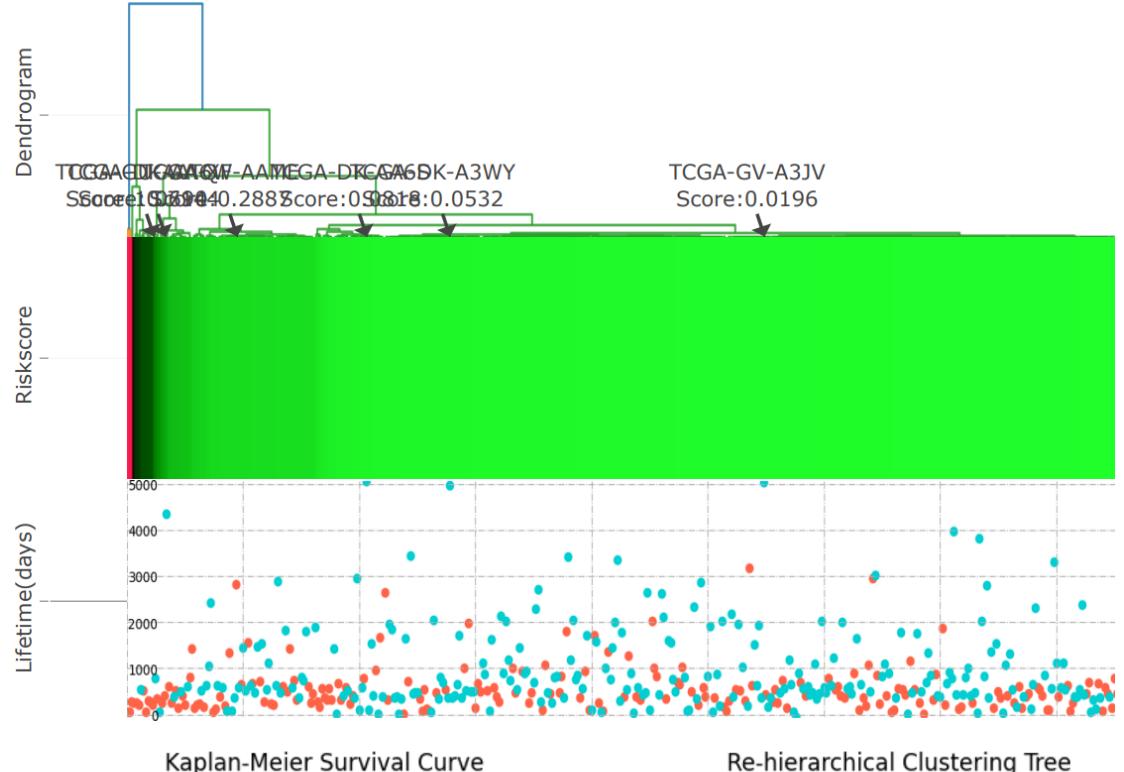
Re-hierarchical Clustering Tree



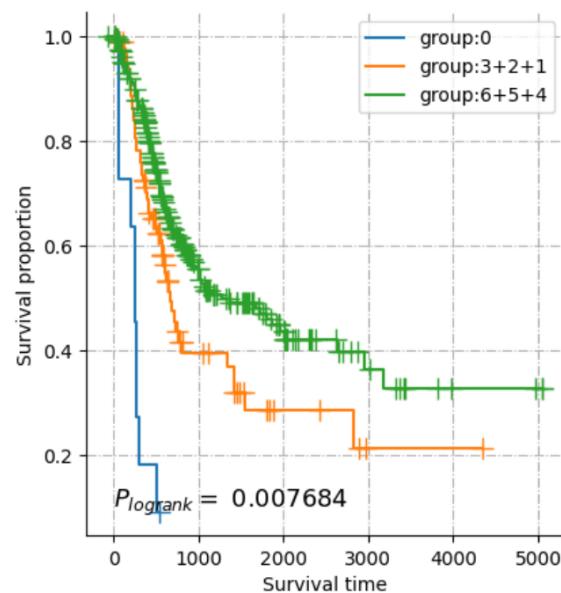
## MicroRNA(881)-10000-1

ID	Name	ID	Name	ID	Name
281	hsa-mir-301a	346	hsa-mir-3160-2	692	hsa-mir-548a-3
334	hsa-mir-3152	368	hsa-mir-3180-3	786	hsa-mir-634

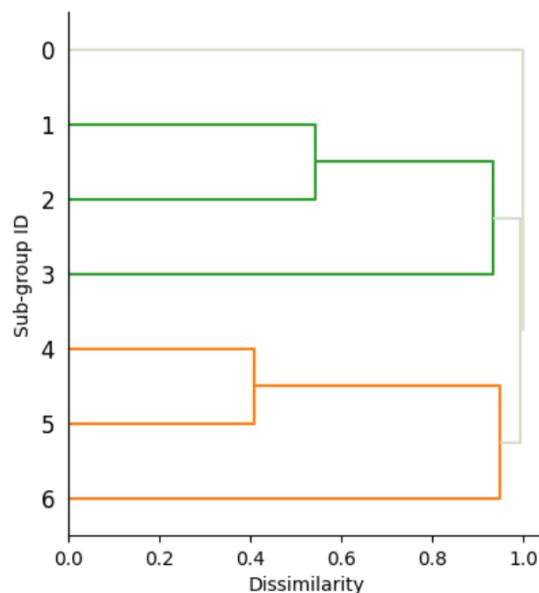
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



Re-hierarchical Clustering Tree

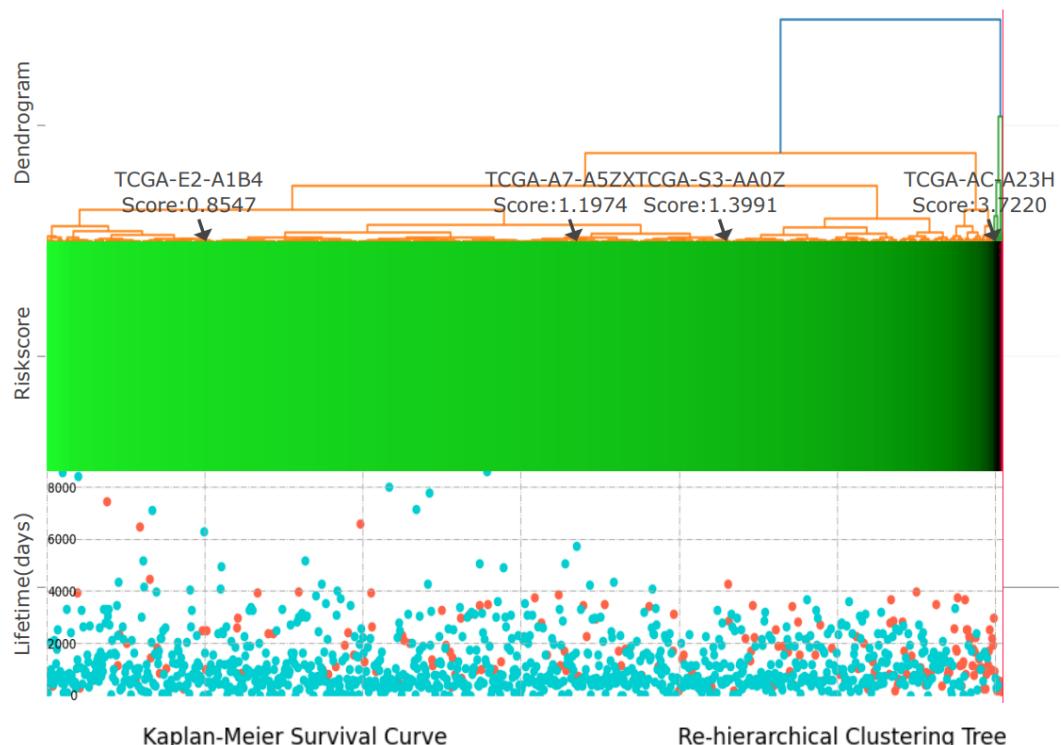


## TCGA-BRCA

mRNA(20212)-10000-5

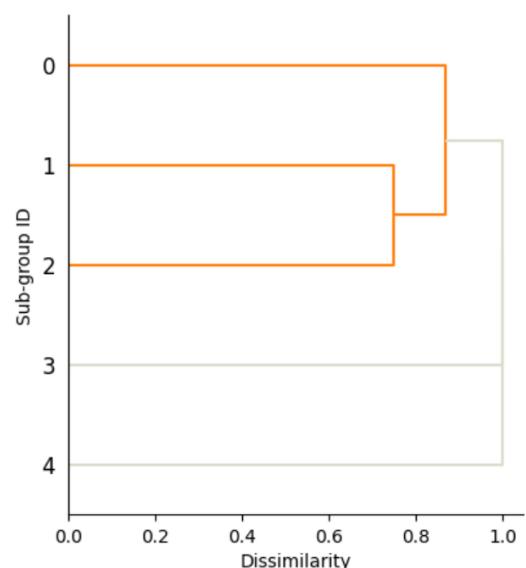
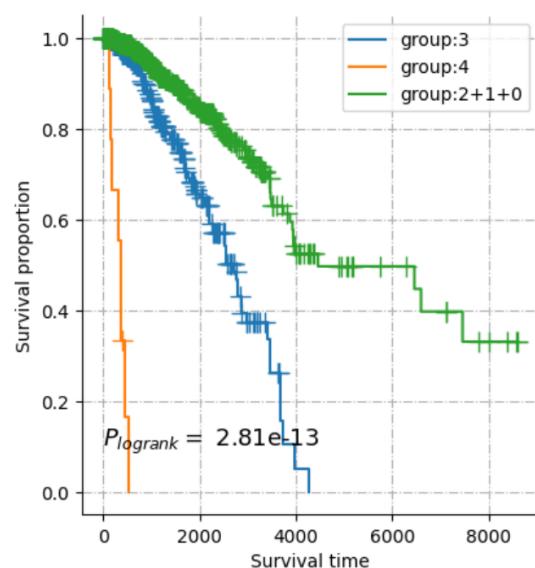
ID	Name	ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
75	ABCB5	5334	EDA2R	6403	FIGF	9075	KLF11	14033	PRKG2	16225	SLC35A5
348	ADH4	5747	EXOC1	8260	IFNK	9766	LOC148145	14502	RABGAP1	16401	SLTRK3
2889	CALB1	6168	FAM9C	8478	INSIG2	10989	MMRN1	14606	RASAL2	16897	SPRR4
4156	CPEB1	6370	FGF7	9074	KLF10	13006	PCDHGA2	15545	SCN3B	17161	STXBP5

Riskscore & Lifetime Map



Kaplan-Meier Survival Curve

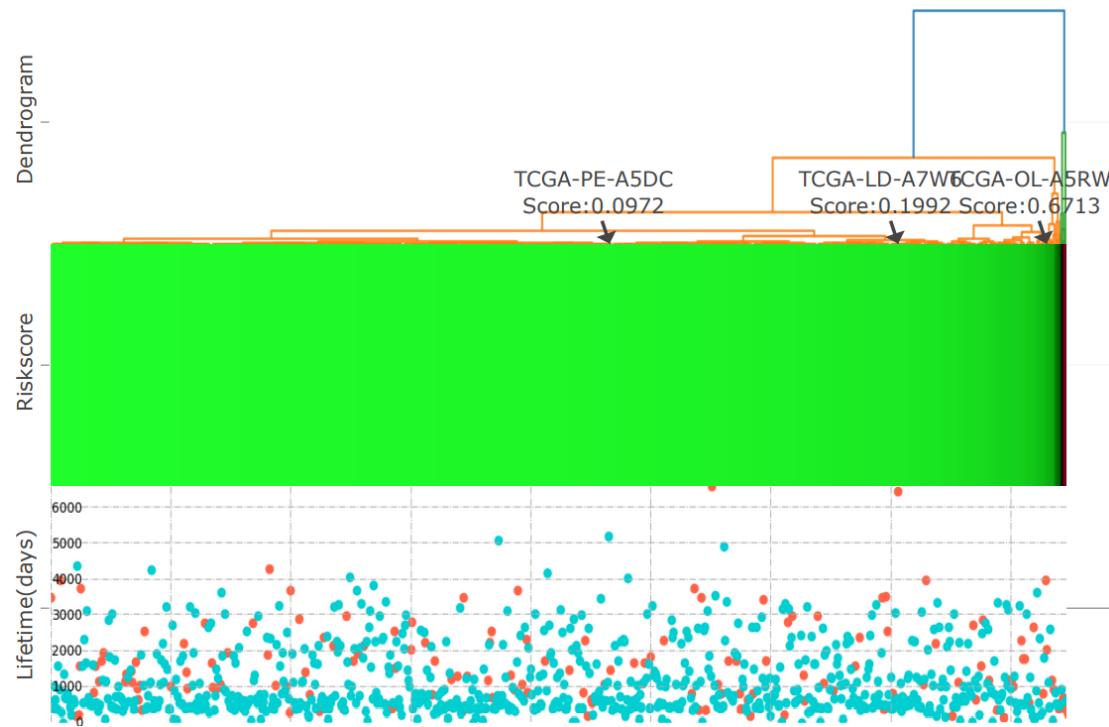
Re-hierarchical Clustering Tree



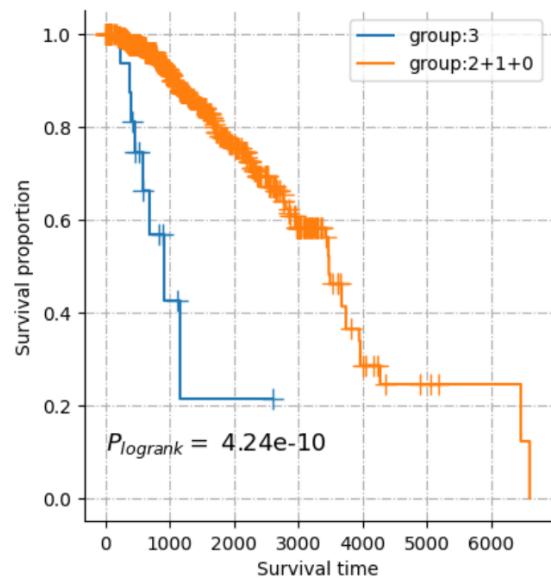
## microRNA(901)-20000-5

ID	Name	ID	Name	ID	Name	ID	Name
263	hsa-mir-221	264	hsa-mir-222	538	hsa-mir-3923	809	hsa-mir-640

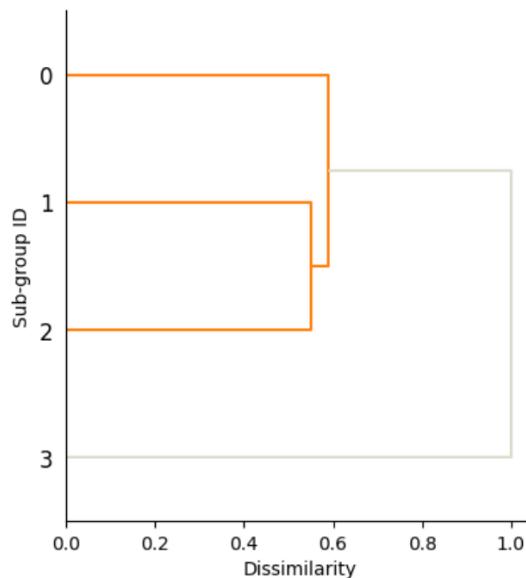
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



Re-hierarchical Clustering Tree

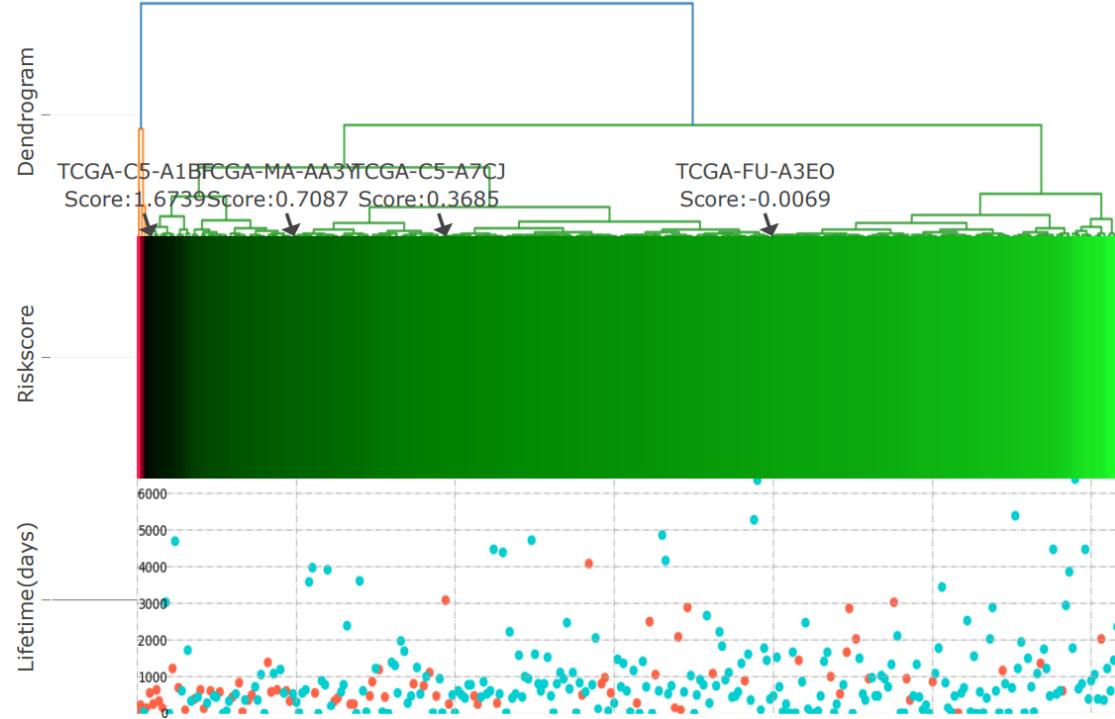


## TCGA-CESC

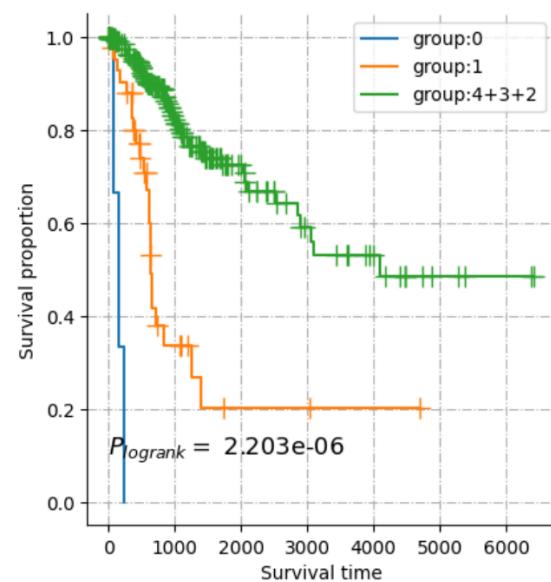
mRNA(19993)-10000-5

ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
4475	CXorf42	6395	FKBP9	6616	FSCN1	8728	KCNJ6	12256	OR10J3

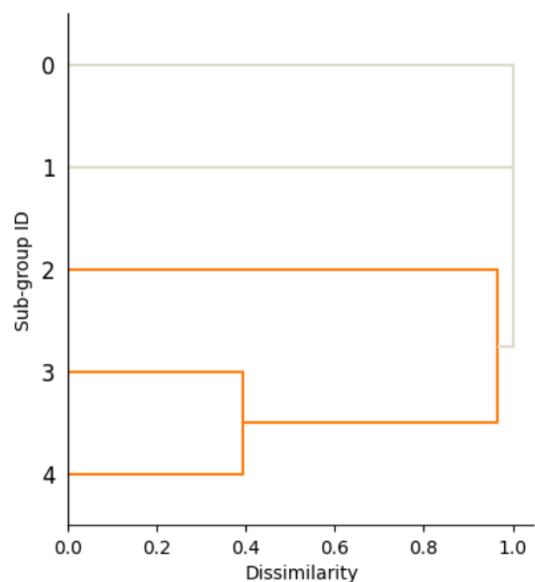
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



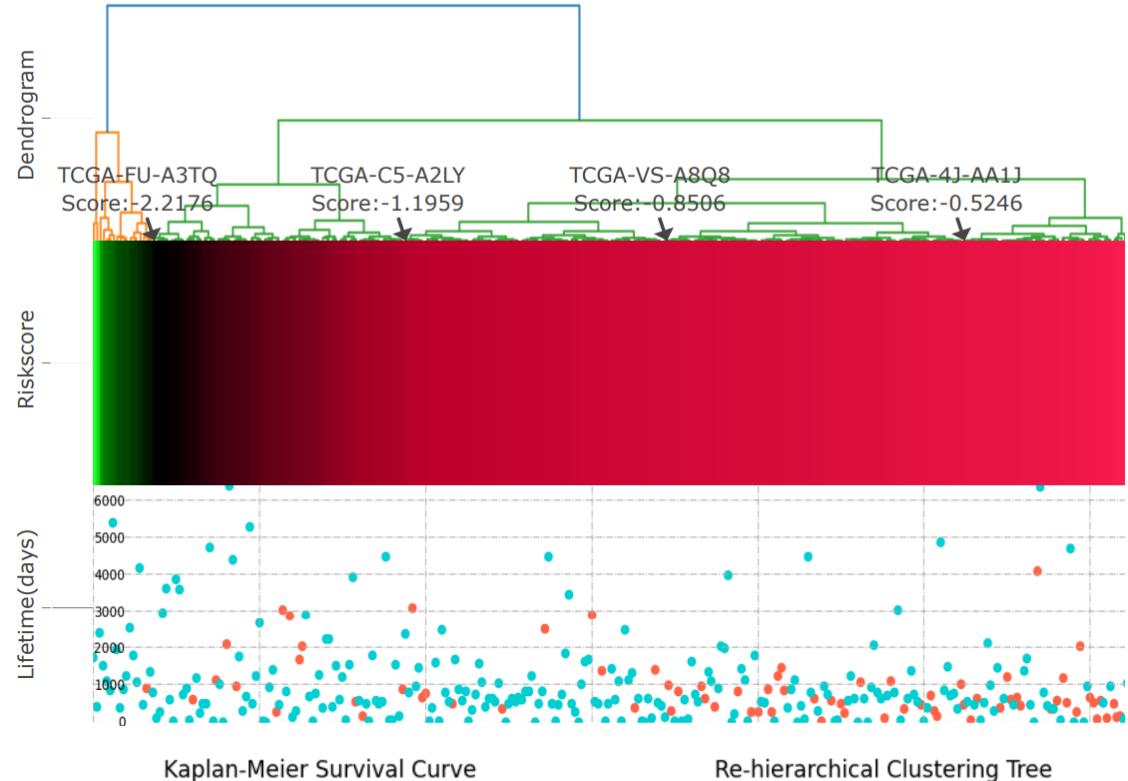
Re-hierarchical Clustering Tree



## microRNA(893)-20000-5

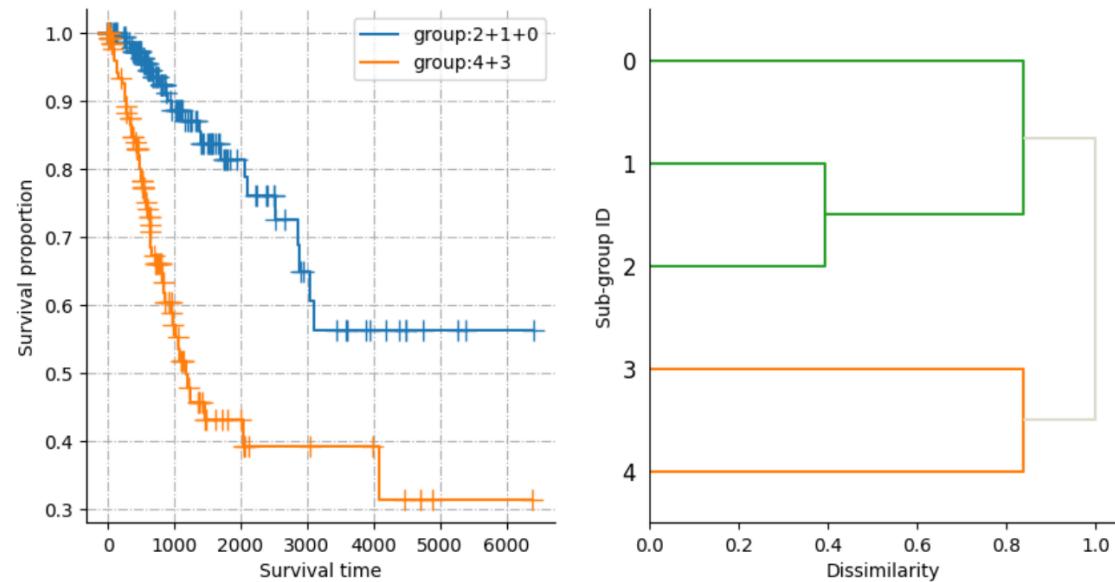
ID	Name	ID	Name	ID	Name
130	hsa-mir-1306	164	hsa-mir-150	434	hsa-mir-361
151	hsa-mir-142	173	hsa-mir-155	452	hsa-mir-3647
155	hsa-mir-1468	432	hsa-mir-3607	819	hsa-mir-658

Riskscore & Lifetime Map



Kaplan-Meier Survival Curve

Re-hierarchical Clustering Tree

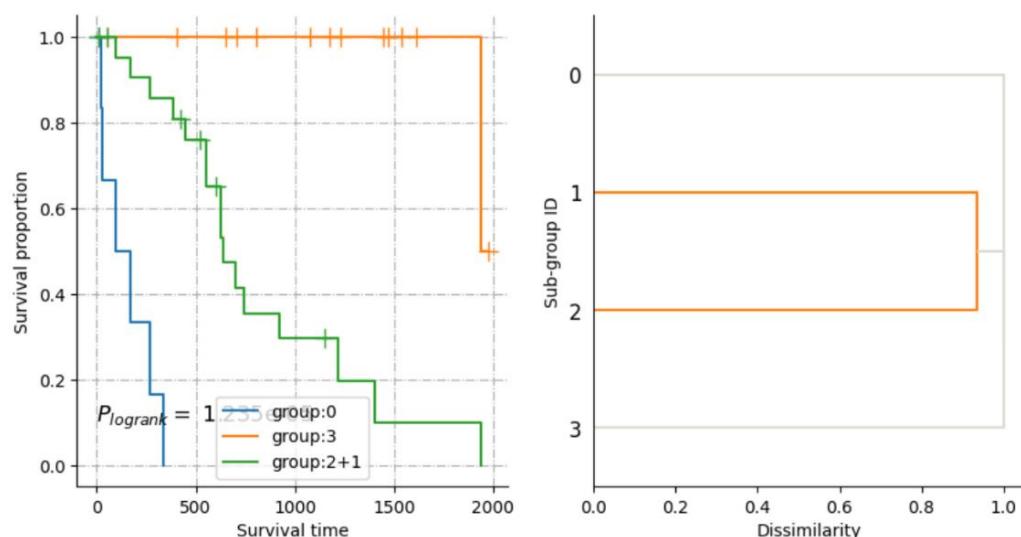
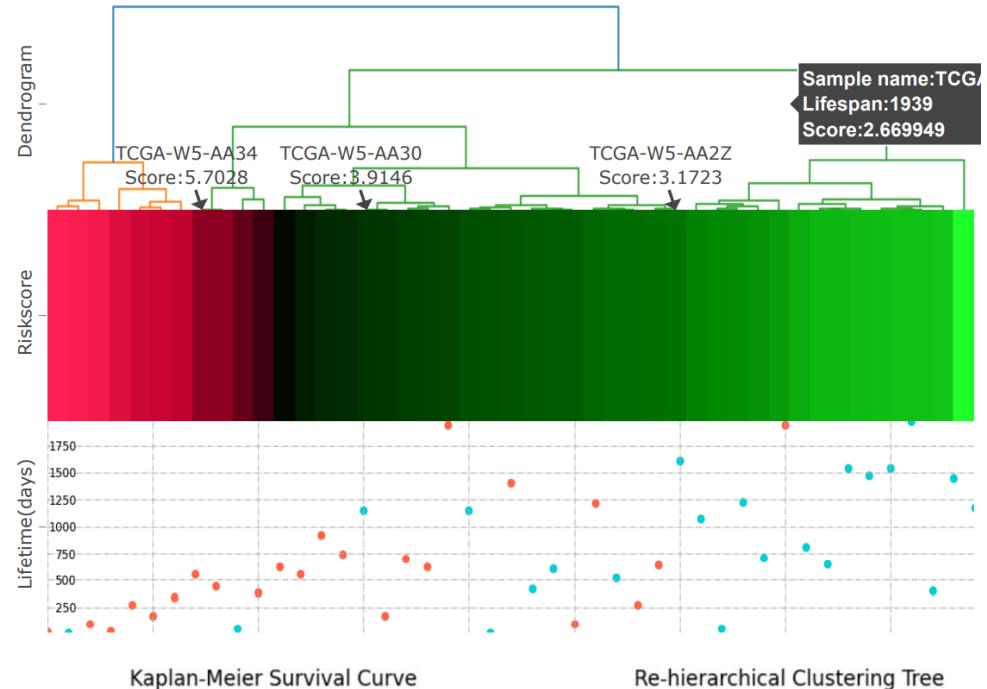


## TCGA-CHOL

mRNA(19413)-10000-5

ID	Name	ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
752	ANXA1	5367	EIF5AL1	7316	GTF2F2	11753	NT5DC3	13509	PRTN3	17824	TTTY1B
1554	BPII2	5368	EIF5A	8051	IFNA13	12357	PCDHA13	13885	RAET1E		
1602	BTBD11	5859	FAM183A	9212	LGALS14	12436	PCOTH	14435	RP1		
2090	C1QBP	6475	FOXP4	9882	LPPR3	12810	PIWIL1	14983	SEMA4B		
2840	CALHM3	6564	FXR2	10132	MAGEA8	12958	PLOD2	15312	SIX4		
3430	CDKN1C	6771	GDNF	11665	NPY2R	13424	PROKR2	16791	TDRD9		

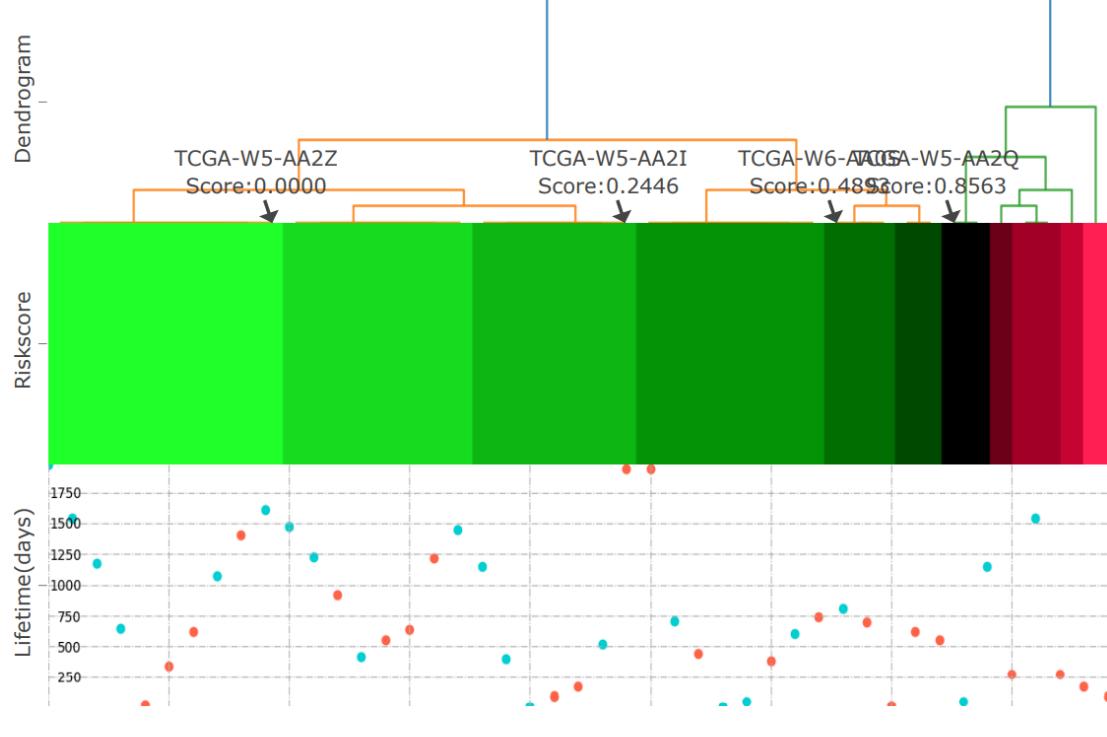
Riskscore & Lifetime Map



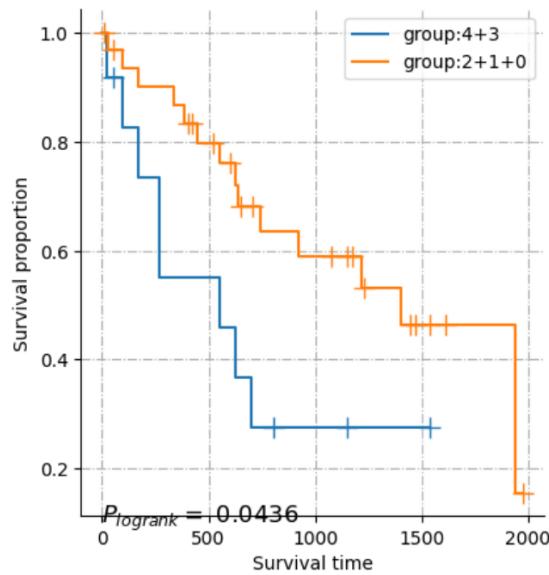
## microRNA(759)-20000-5

ID	Name
630	hsa-mir-556

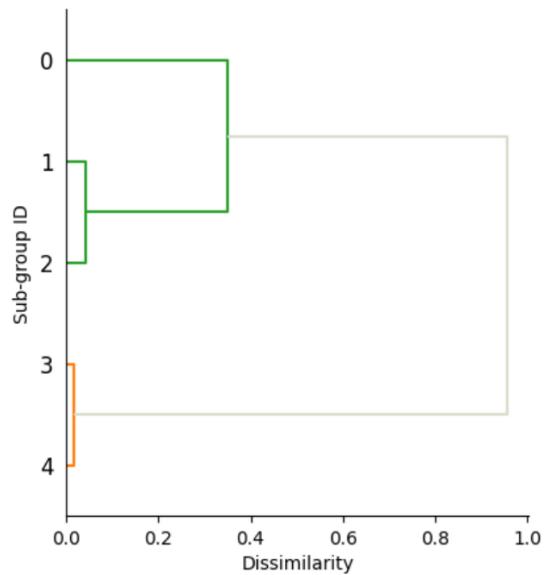
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



Re-hierarchical Clustering Tree

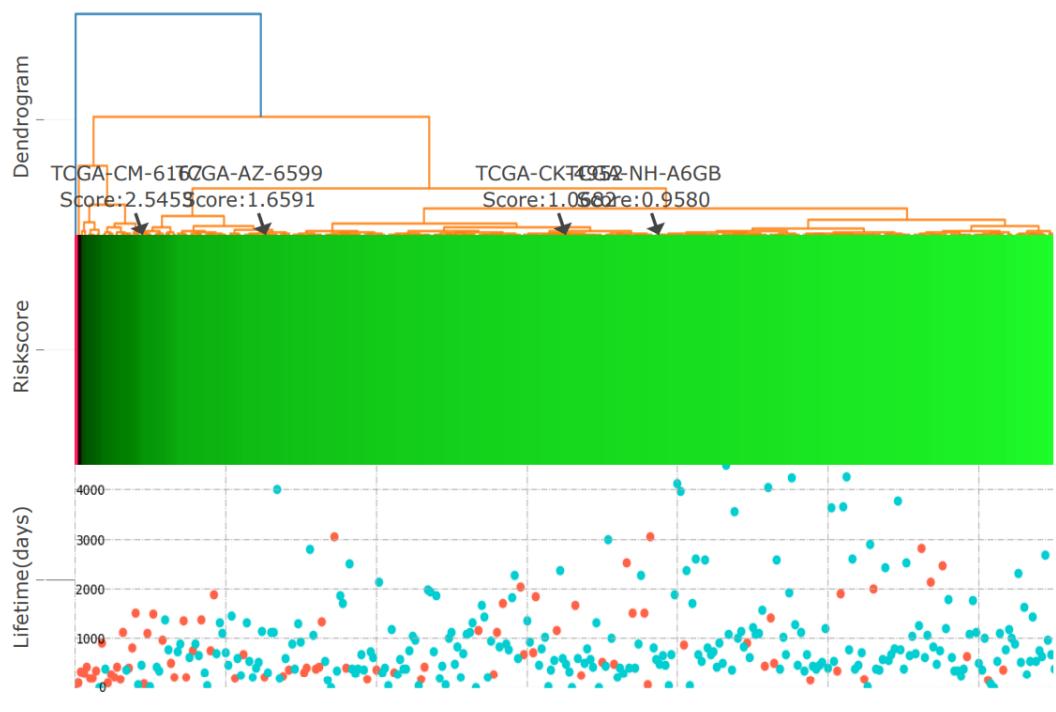


## TCGA-COAD

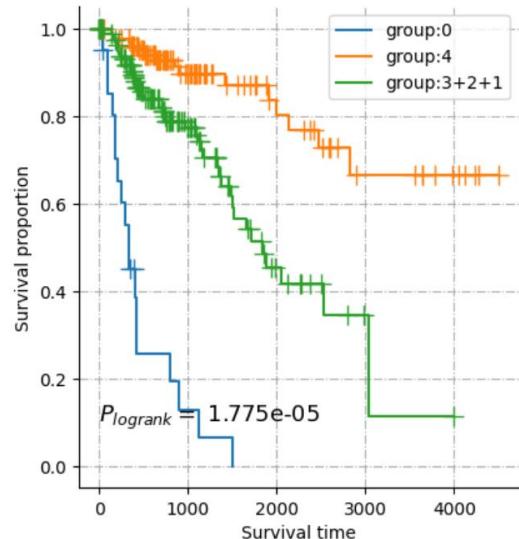
mRNA(19873)-10000-5

ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
1574	BPI	7753	HIST1H2AE	9589	LOC100132831	11480	NCRNA00029	13848	PRSSL1
2735	C8orf86	7798	HIST2H2BA	9953	LOC646498	12705	PCDHB1	13873	PSG6
2907	CAMK2B	7799	HIST2H2BE	10335	MAGEA2	12922	PEX5L	16541	SPOCK3
6724	GABRG2	7800	HIST2H2BF	10525	MBL1P	12949	PGAM2	16816	STX1B

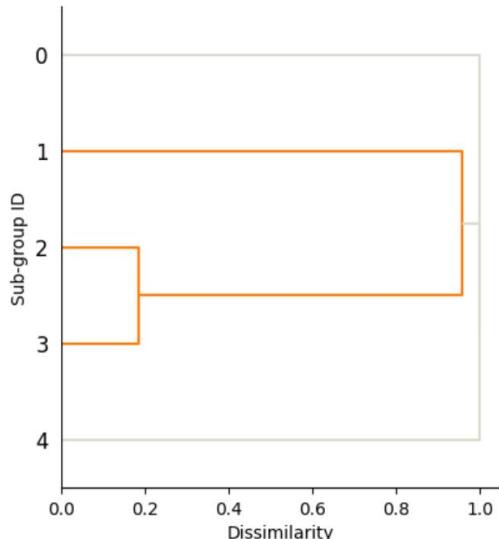
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



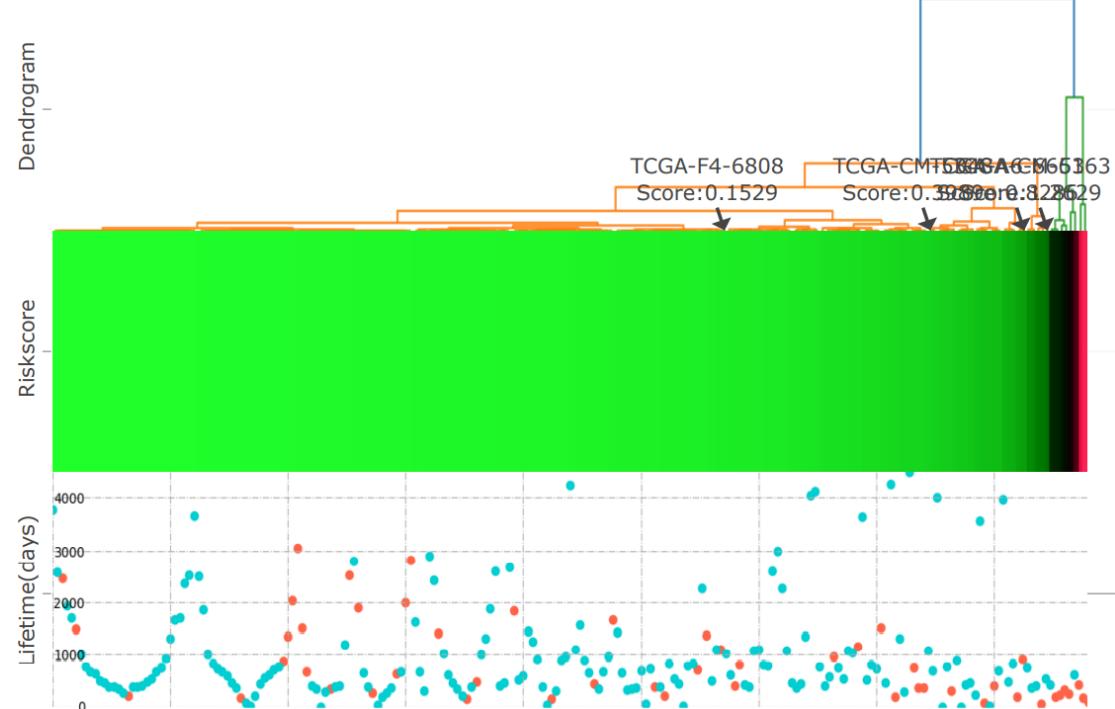
Re-hierarchical Clustering Tree



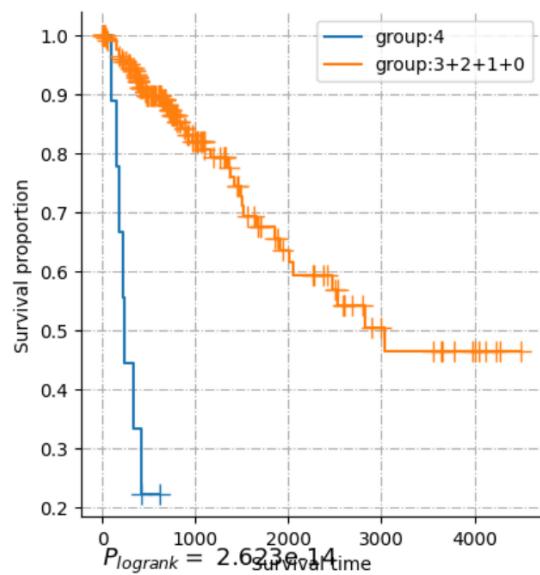
### microRNA(617)-20000-5

ID	Name	ID	Name	ID	Name
108	hsa-mir-1293	353	hsa-mir-449b	597	hsa-mir-934
352	hsa-mir-449a	507	hsa-mir-610		

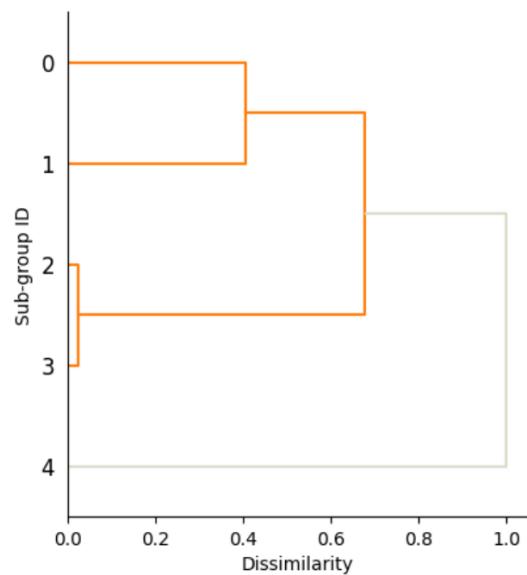
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



Re-hierarchical Clustering Tree

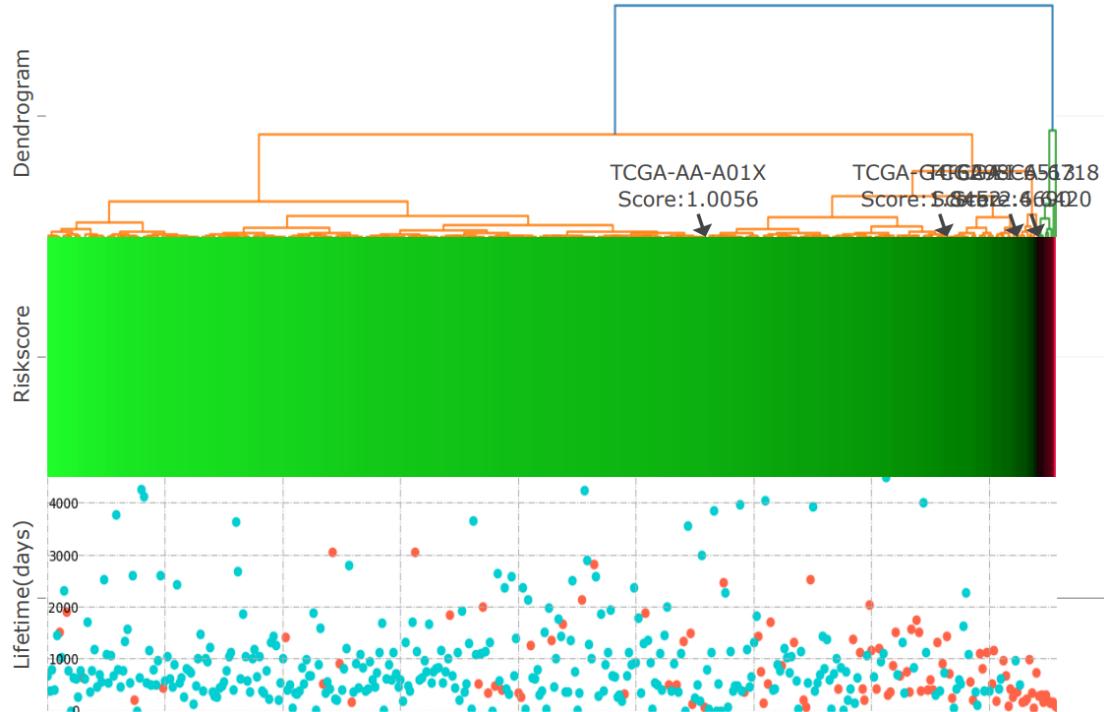


## TCGA-COADREAD

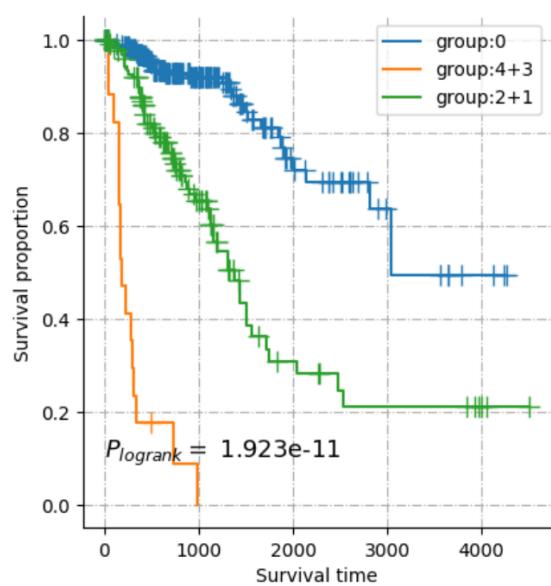
mRNA(19954)-50000-1

ID	Name
3200	CCKBR

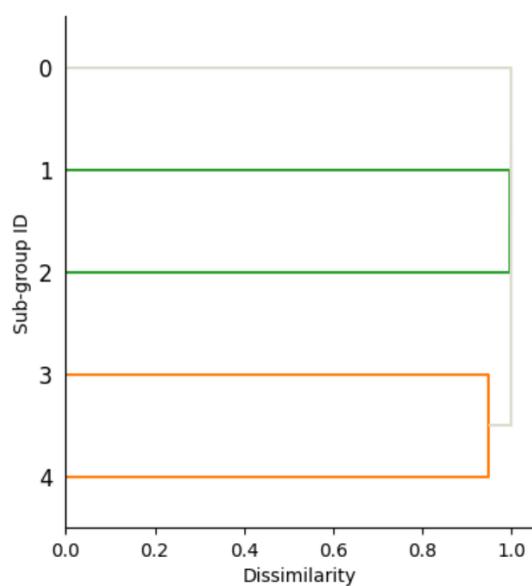
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



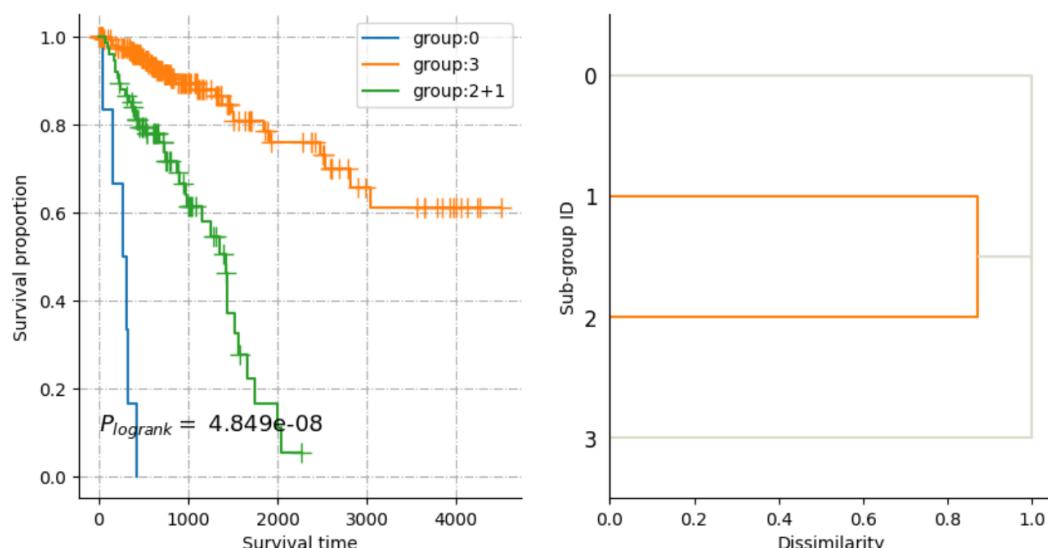
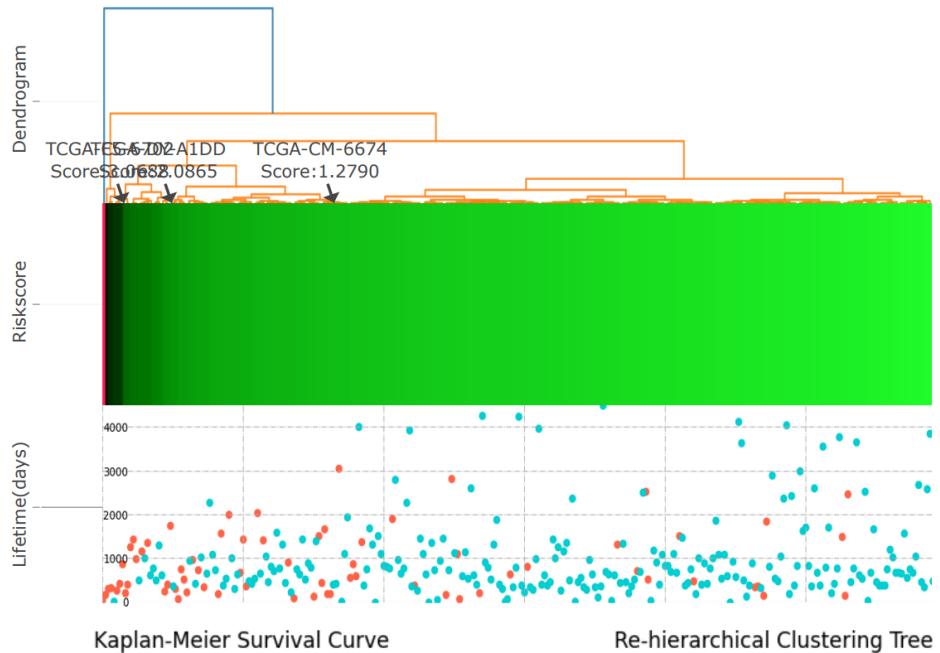
Re-hierarchical Clustering Tree



## microRNA(627)-20000-5

ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
26	hsa-mir-1179	104	hsa-mir-129-1	212	hsa-mir-1975	315	hsa-mir-34b	494	hsa-mir-586
39	hsa-mir-1224	105	hsa-mir-129-2	218	hsa-mir-199a-	316	hsa-mir-34c	516	hsa-mir-610
47	hsa-mir-1234	109	hsa-mir-1293	219	hsa-mir-199a-	355	hsa-mir-449a	557	hsa-mir-659
51	hsa-mir-124-1	111	hsa-mir-1295	220	hsa-mir-199b	356	hsa-mir-449b	583	hsa-mir-874
52	hsa-mir-124-2	155	hsa-mir-149	244	hsa-mir-216a	465	hsa-mir-548p	593	hsa-mir-891a
53	hsa-mir-124-3	185	hsa-mir-187	245	hsa-mir-216b	472	hsa-mir-554	597	hsa-mir-9-1
59	hsa-mir-1248	202	hsa-mir-193b	246	hsa-mir-217	479	hsa-mir-567	598	hsa-mir-9-2
85	hsa-mir-1271	210	hsa-mir-1973	314	hsa-mir-34a	484	hsa-mir-574		

Riskscore & Lifetime Map

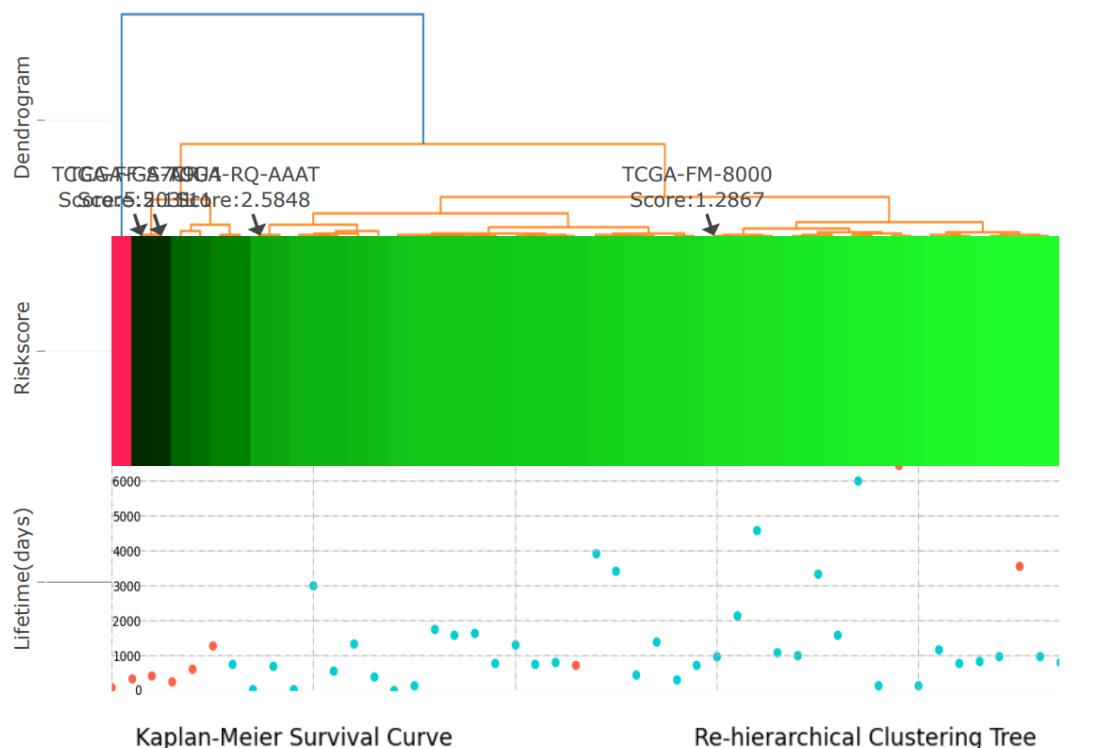


## TCGA-DLBC

mRNA(19945)-10000-5

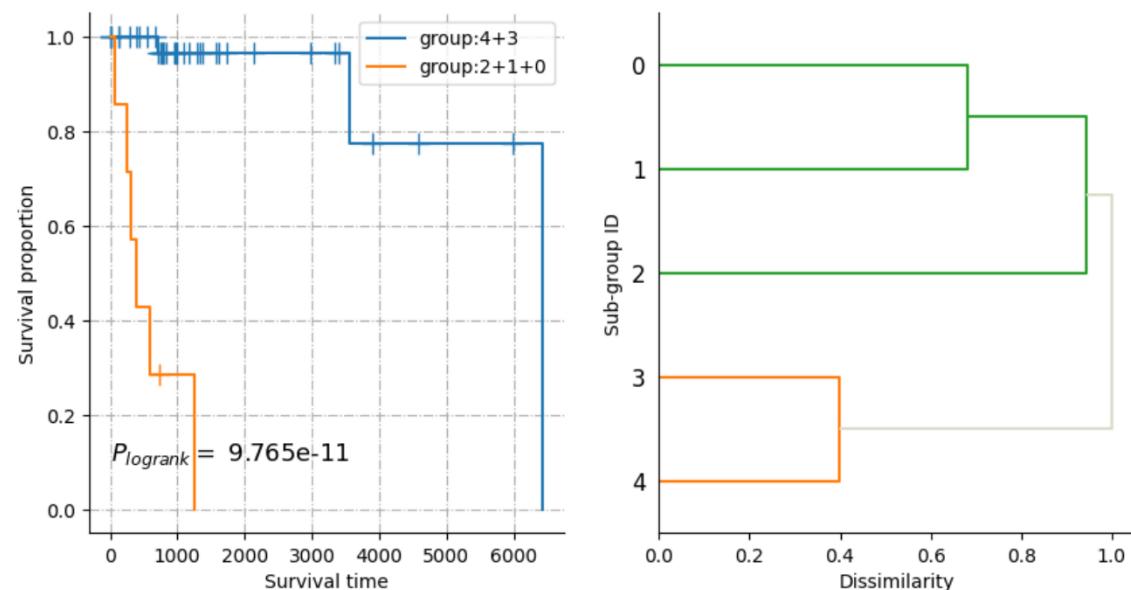
ID	Name	ID	Name	ID	Name	ID	Name
2258	C20orf123	4027	COL9A1	12695	PAQR7	18835	VPS37B
3176	CCL13	7851	HOMER1	12866	PCP2	18858	VSTM1
3297	CD300LD	8671	KCNK1	13310	PLCB1	19941	tAKR

Riskscore & Lifetime Map



Kaplan-Meier Survival Curve

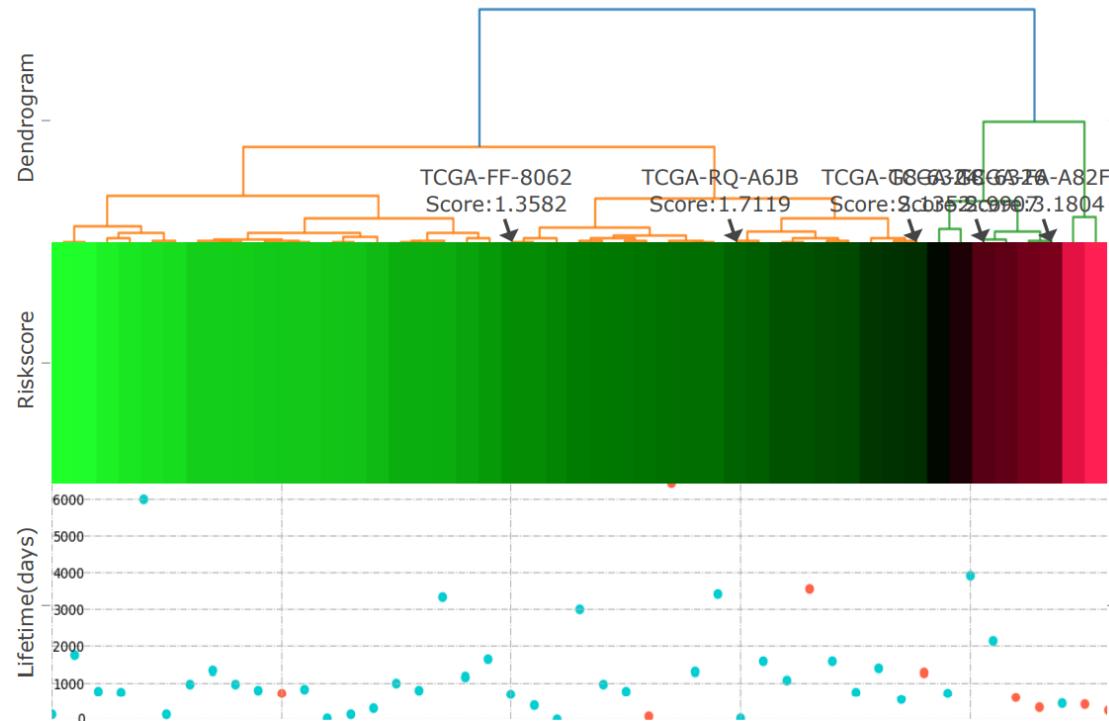
Re-hierarchical Clustering Tree



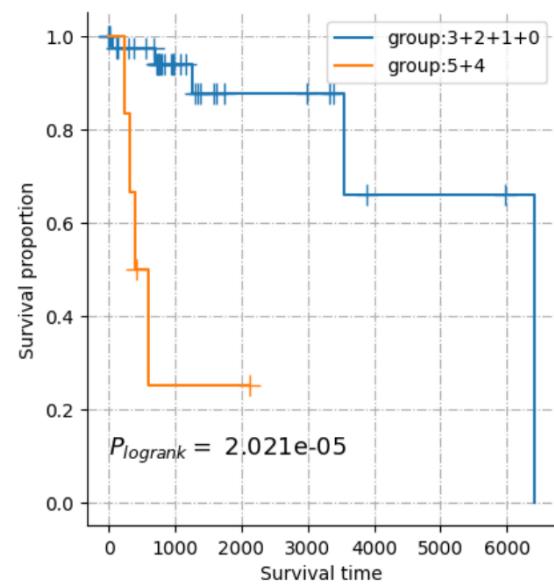
## microRNA(782)-20000-5

ID	Name	ID	Name	ID	Name	ID	Name
117	hsa-mir-132	316	hsa-mir-3157	396	hsa-mir-3614	659	hsa-mir-580
299	hsa-mir-3139	384	hsa-mir-34a	461	hsa-mir-378c		
305	hsa-mir-3145	391	hsa-mir-361	656	hsa-mir-576		

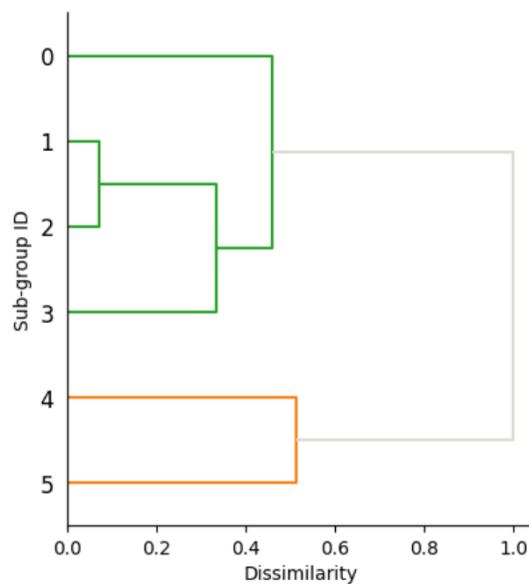
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



Re-hierarchical Clustering Tree

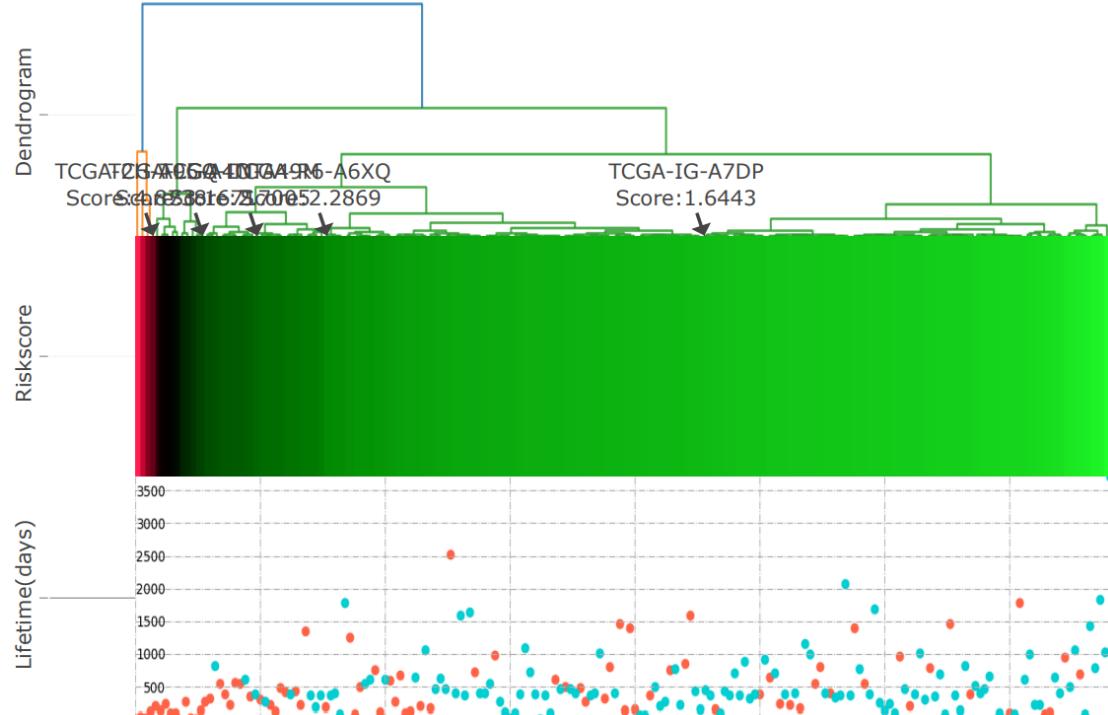


## TCGA-ESCA

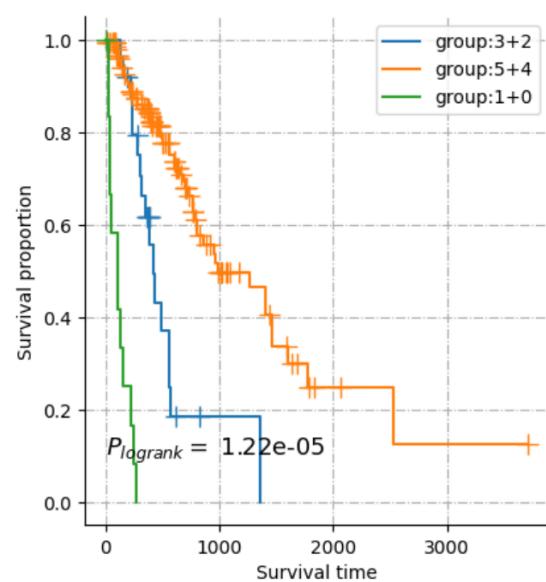
mRNA(20222)-10000-5

ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
8352	IL17A	9422	LCE3D	10707	MDM1	13466	PLA2G2F	14460	RAB39B
8588	ISM2	9423	LCE3E	11508	NAP1L6	14208	LMNB1	19501	ZC3HAV1

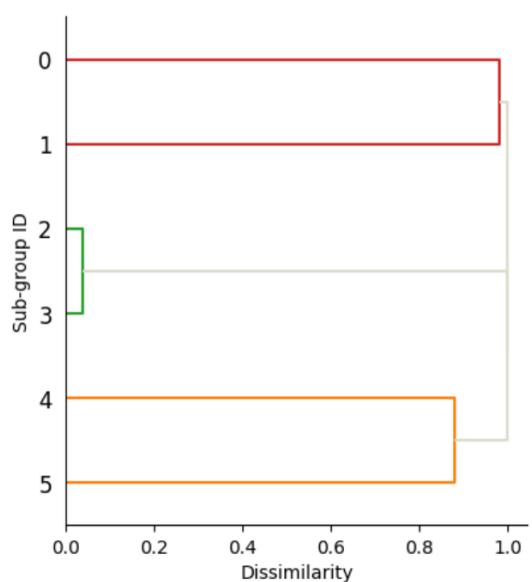
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



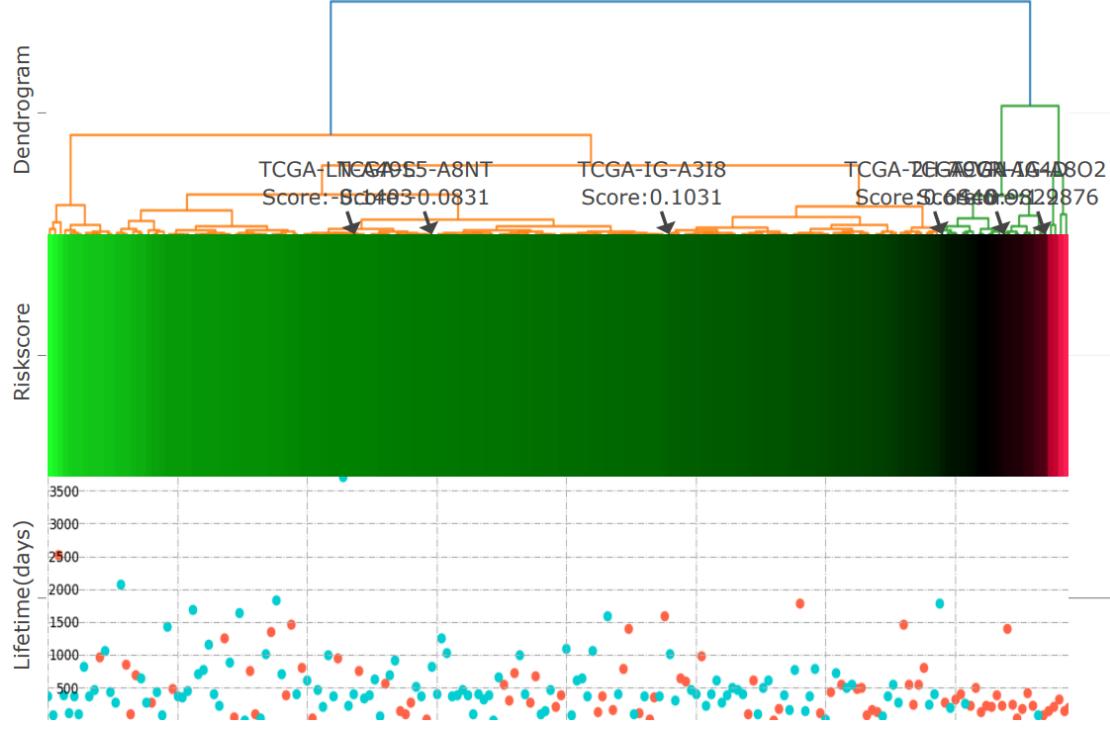
Re-hierarchical Clustering Tree



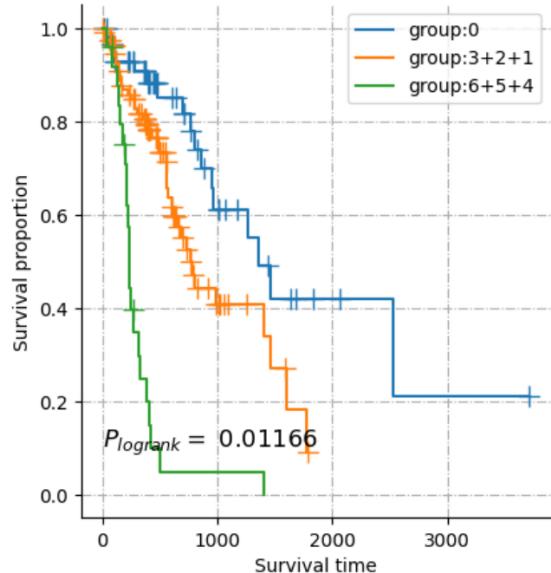
## microRNA(852)-600-50

ID	Name	ID	Name	ID	Name	ID	Name
110	hsa-mir-1291	368	hsa-mir-3189	764	hsa-mir-641	781	hsa-mir-659

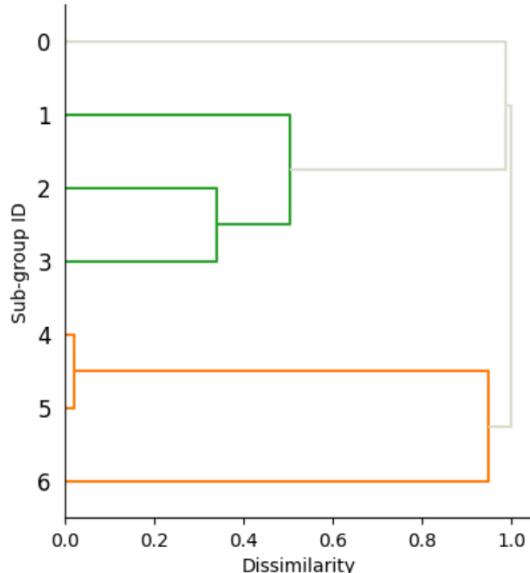
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



Re-hierarchical Clustering Tree

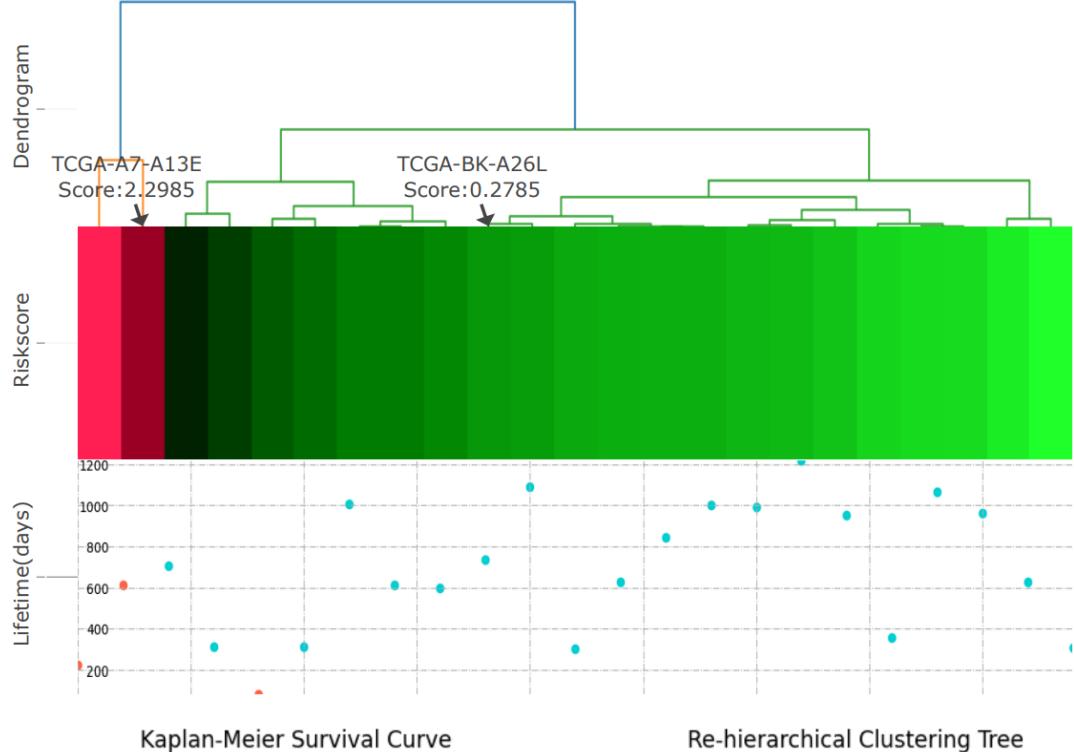


## TCGA-FPPP

microRNA(759)-20000-5

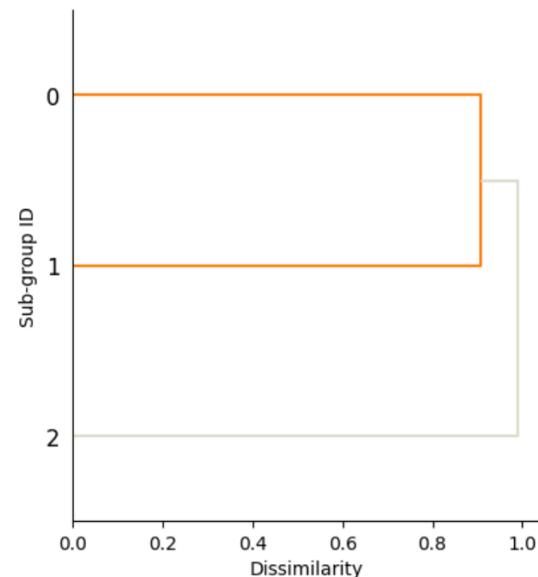
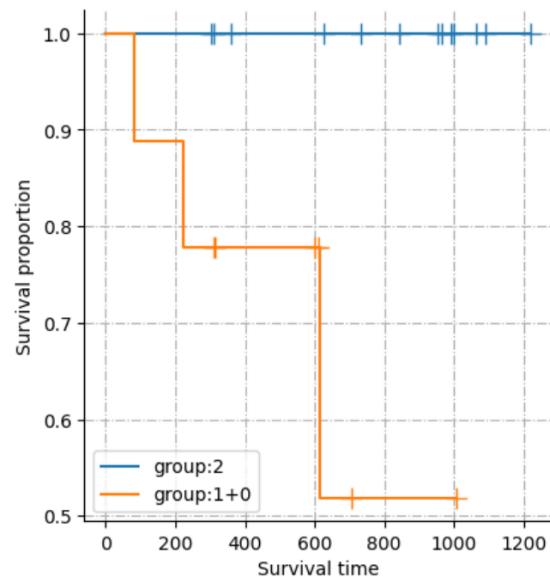
ID	Name	ID	Name	ID	Name	ID	Name
53	hsa-mir-1249	79	hsa-mir-1277	411	hsa-mir-3675	644	hsa-mir-582
66	hsa-mir-1260b	148	hsa-mir-15b	449	hsa-mir-383	658	hsa-mir-605
70	hsa-mir-1267	311	hsa-mir-3171	605	hsa-mir-548d-1	692	hsa-mir-658

Riskscore & Lifetime Map



Kaplan-Meier Survival Curve

Re-hierarchical Clustering Tree

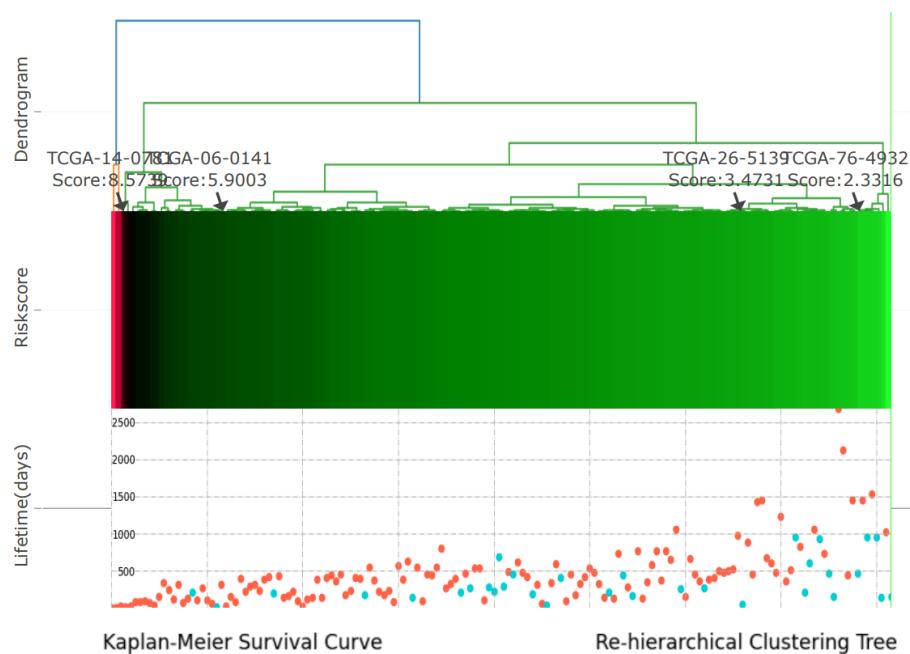


## TCGA-GBM

mRNA(19840)-10000-5

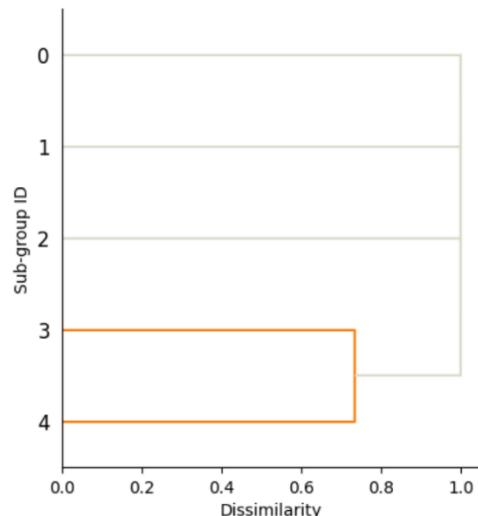
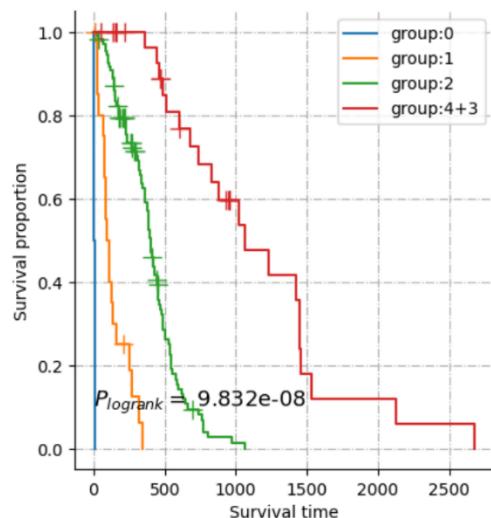
ID	Name	ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
620	AMN	3798	CLC	7494	GZMB	9452	LIPJ	13165	PLA2R1	16026	SLC9A4
658	ANK1	3845	CLEC4GP1	8220	IGFBP6	9577	LOC100134713	13346	PODNL1	16029	SLC9A7
831	APOA1	5022	DNAJC30	8519	ITGA3	11723	NKX3-1	13410	POM121L1P	16346	SOAT2
1895	C14orf72	5215	DUSP6	9100	KPRP	11954	NSUN5	14055	PXN	16578	SRD5A1
2450	C3orf36	5727	EXT2	9151	KRT78	12664	PCDHHA7	14993	RTP2	17267	TFPI2
3064	CCDC129	6734	GALE	9245	LAMC2	12701	PCDHGB2	15326	SEMA4F	17796	TNNC2
3211	CCL3L3	7099	GNS	9448	LIPF	12814	PDIA4	15744	SLC20A1	18079	TRPM5

Riskscore & Lifetime Map



Kaplan-Meier Survival Curve

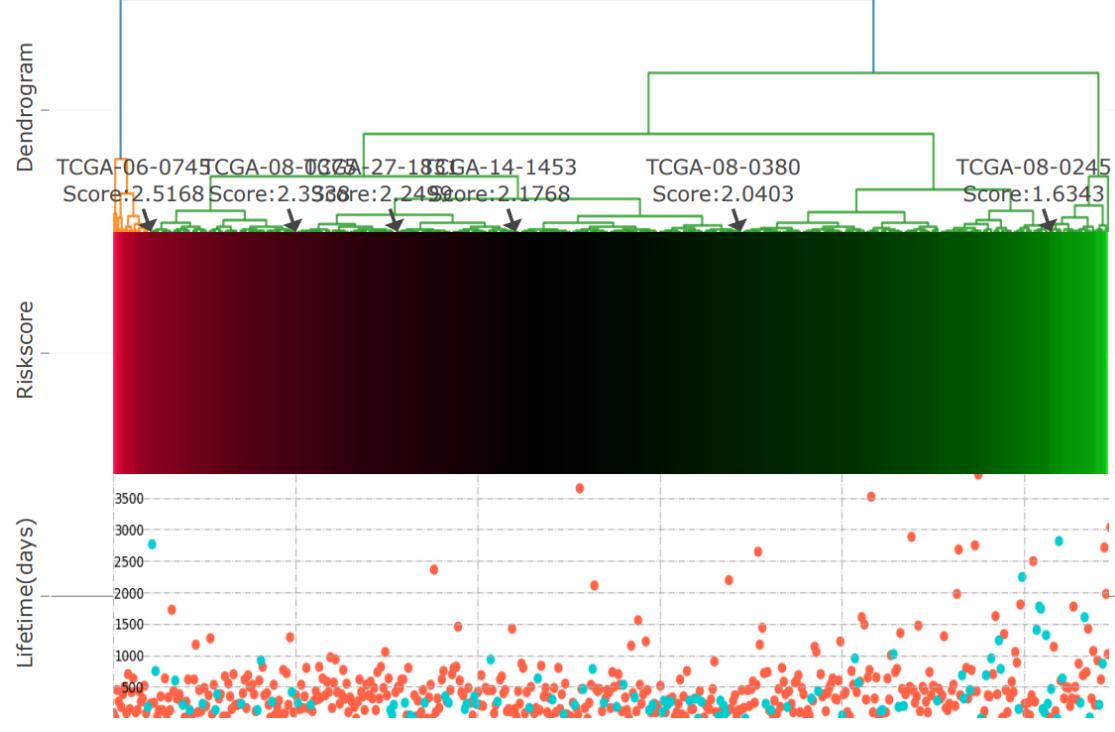
Re-hierarchical Clustering Tree



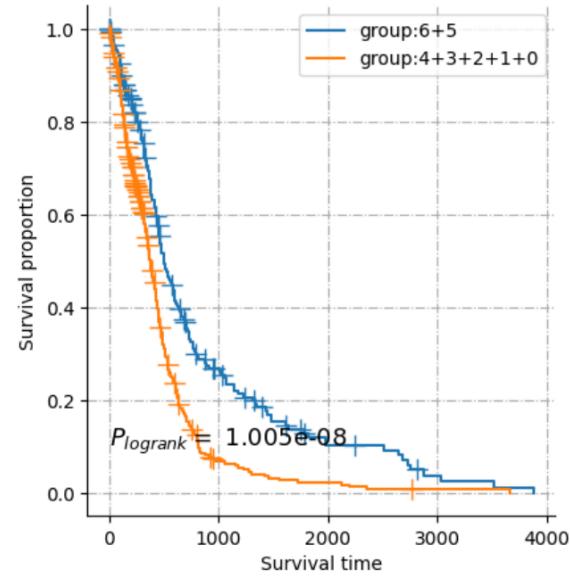
## microRNA(474)-20000-5

ID	Name
125	hsa-miR-222

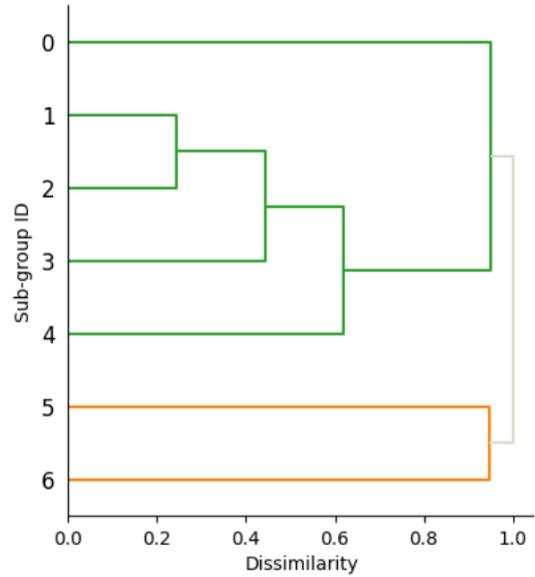
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



Re-hierarchical Clustering Tree

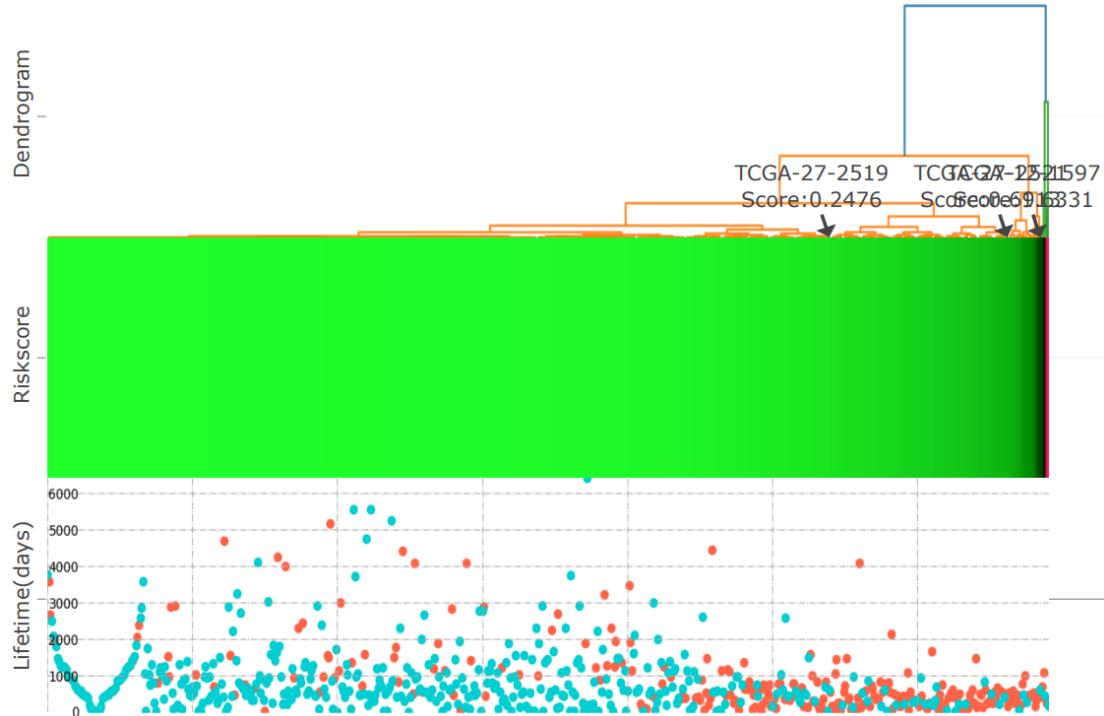


## TCGA-GBMLGG

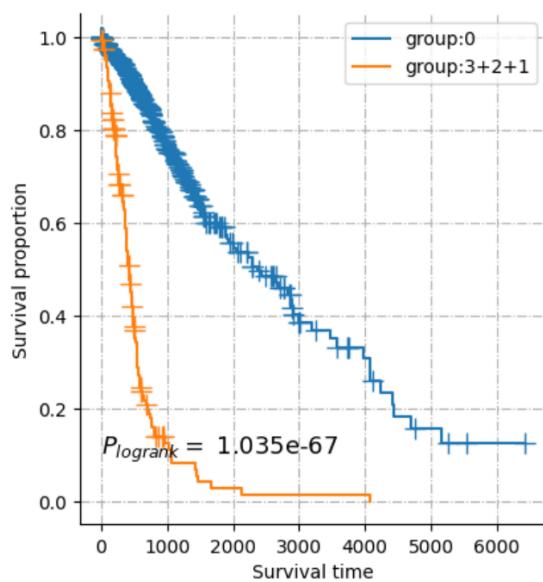
mRNA(20175)-10000-5

ID	Name	ID	Name
1012	ARL9	7803	HIST1H2BH

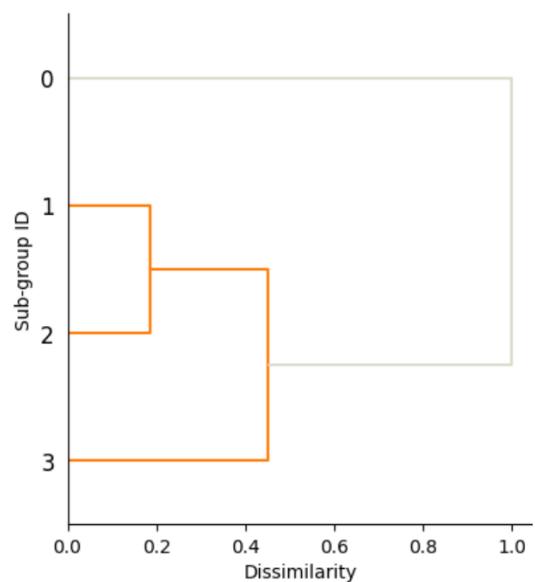
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



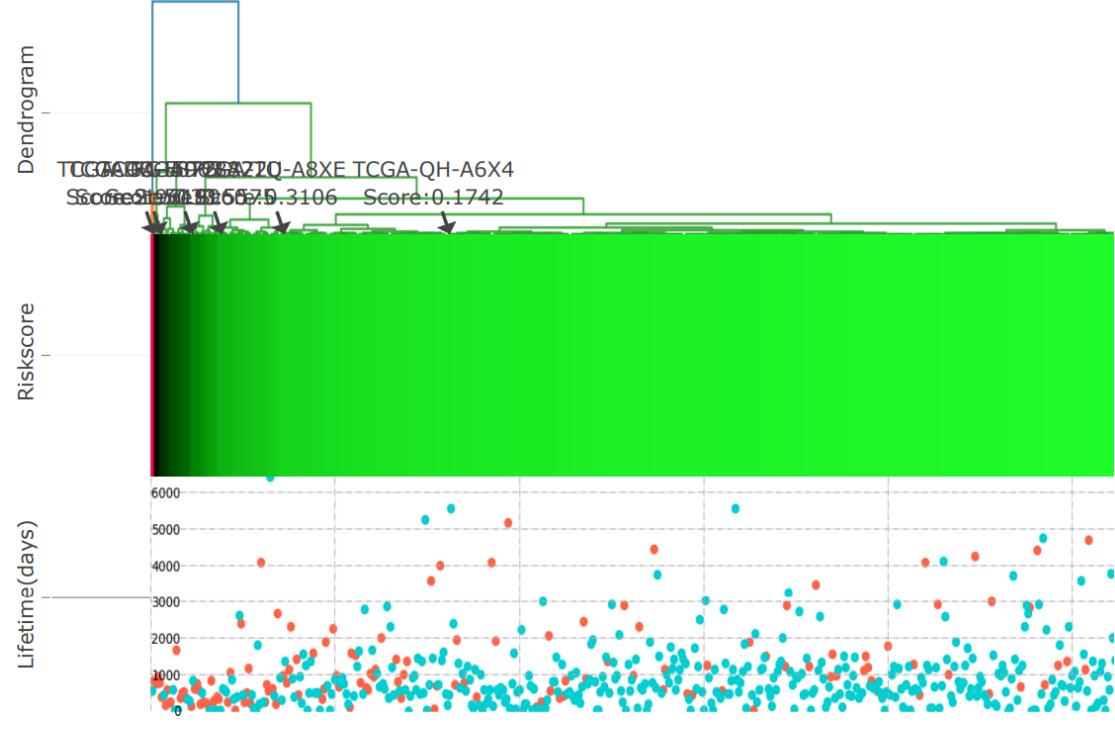
Re-hierarchical Clustering Tree



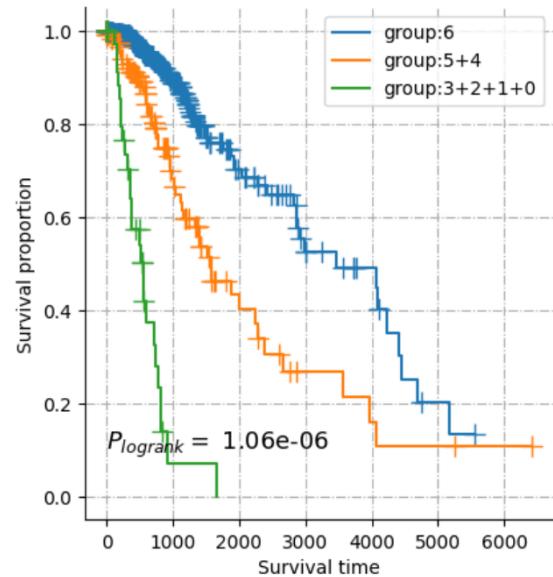
## microRNA(860)-20000-5

ID	Name
166	hsa-mir-155

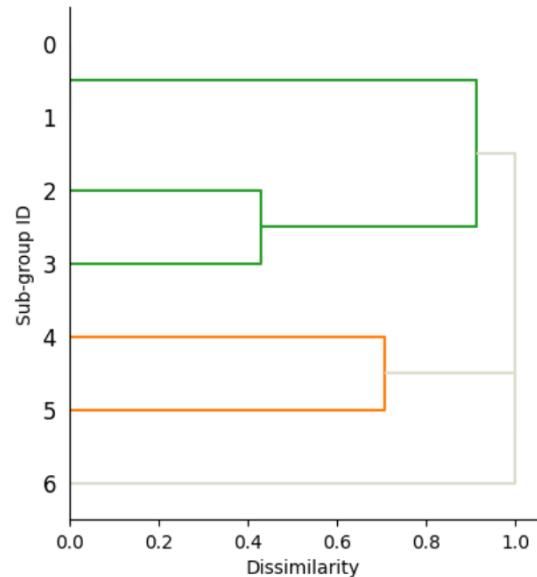
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



Re-hierarchical Clustering Tree

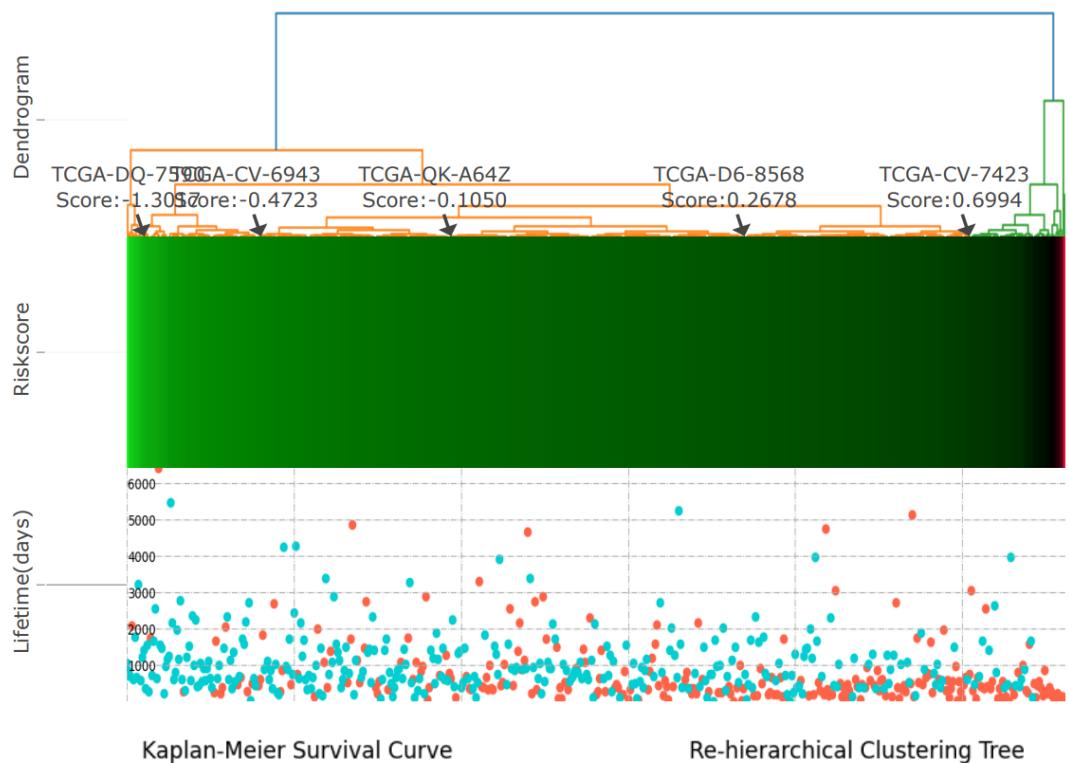


## TCGA-HNSC

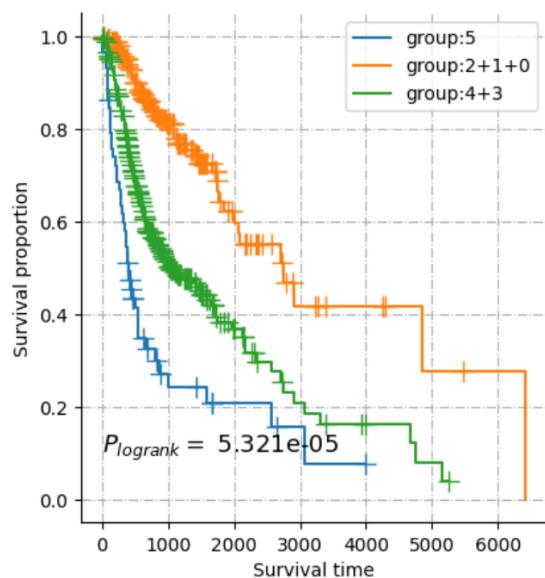
mRNA(20237)-10000-5

ID	Name	ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
4581	CYP3A5	5538	EMD	15341	RTL1	17831	TMC8	19734	ZNF235	20003	ZNF621
5016	DMRTB1	10529	MAP2K1	15895	SH2D3C	18243	TP53INP1	19753	ZNF266	20060	ZNF700
5204	DSCAM	15341	POLR1D	16255	SLC35E2.1	18916	UPK2	19947	ZNF558		

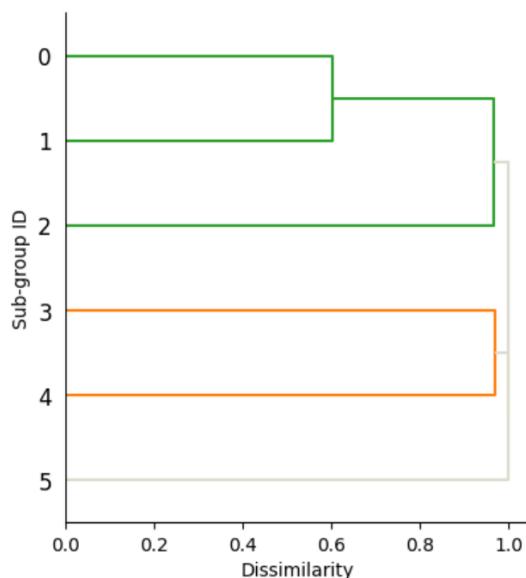
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



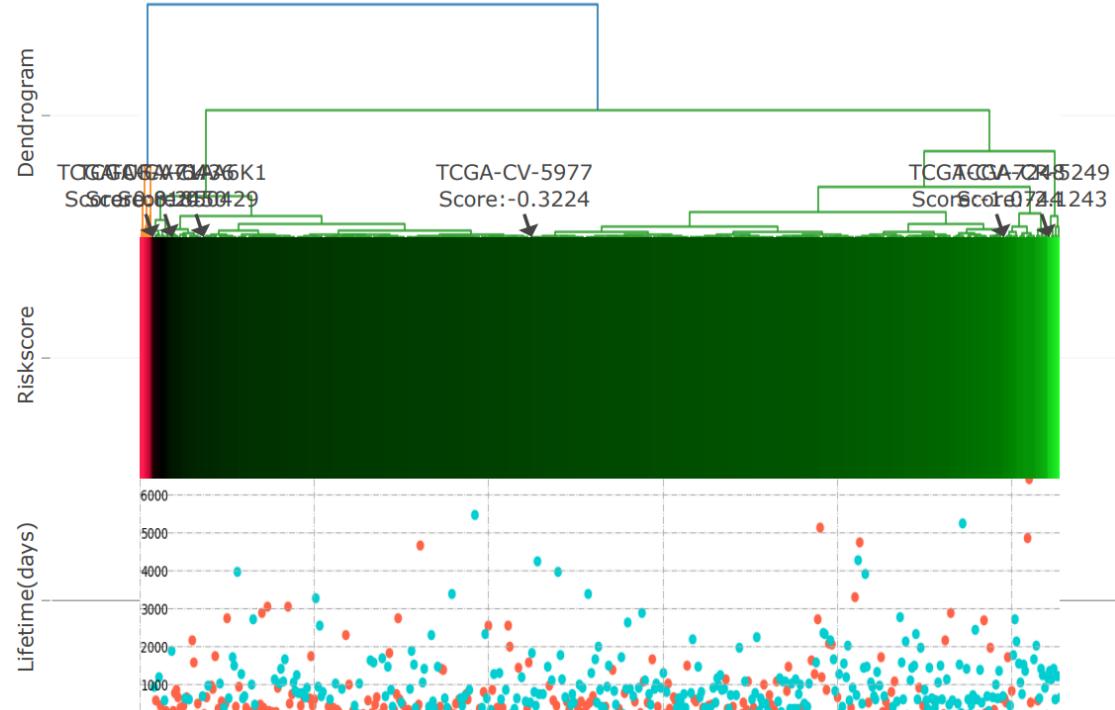
Re-hierarchical Clustering Tree



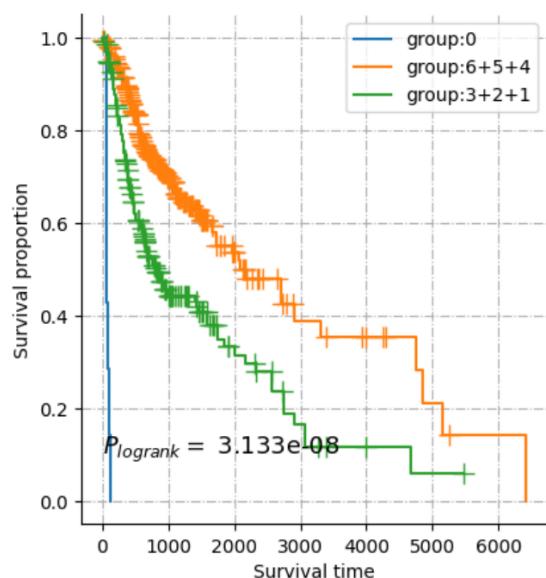
## microRNA(907)-10000-1

ID	Name	ID	Name	ID	Name	ID	Name
32	hsa-mir-1184-2	323	hsa-mir-3136	604	hsa-mir-4327	831	hsa-mir-658
149	hsa-mir-142	328	hsa-mir-3141	747	hsa-mir-561	894	hsa-mir-941-3
162	hsa-mir-150	503	hsa-mir-372	761	hsa-mir-581		
309	hsa-mir-3123	588	hsa-mir-4300	771	hsa-mir-591		

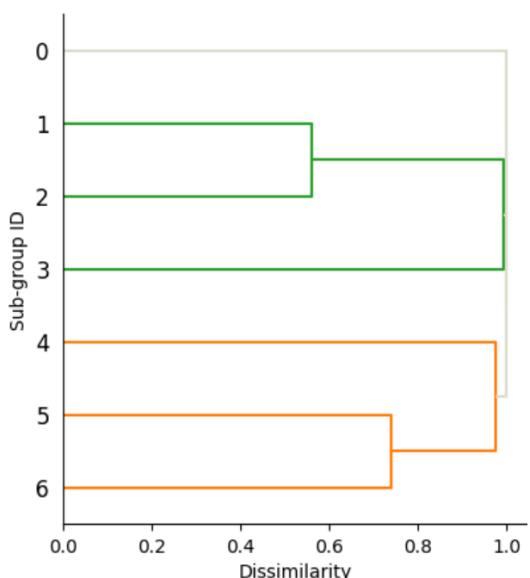
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



Re-hierarchical Clustering Tree

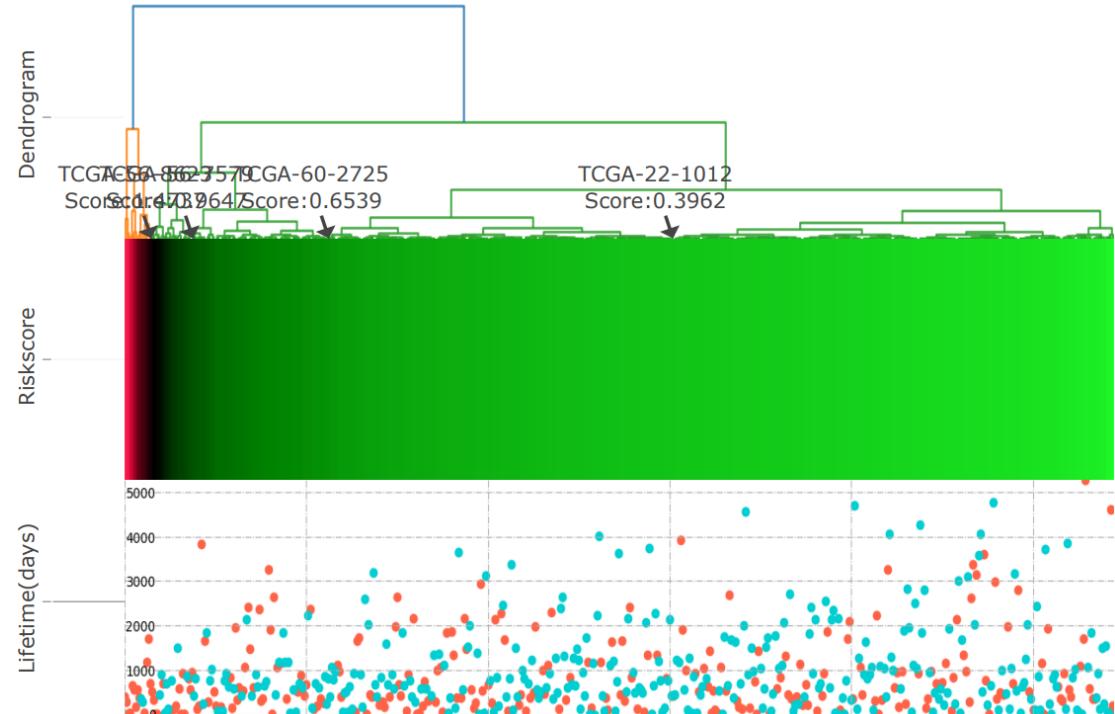


## TCGA-LUSC

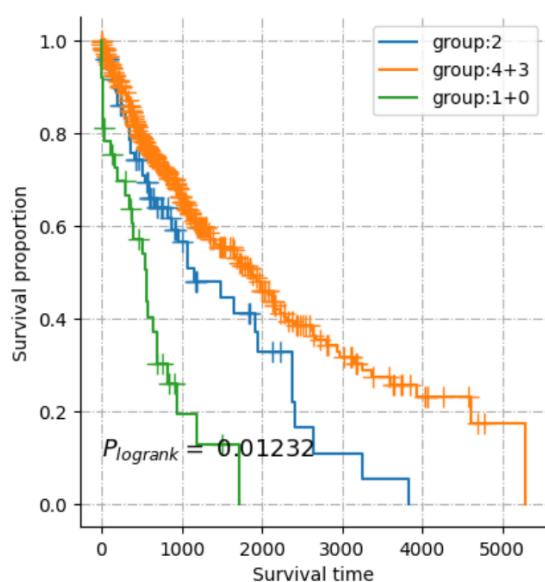
mRNA(20218)-10000-5

ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
635	AMY1A	2727	C8orf4	8987	KIAA1632	9745	LOC100302650	18327	TRIB1

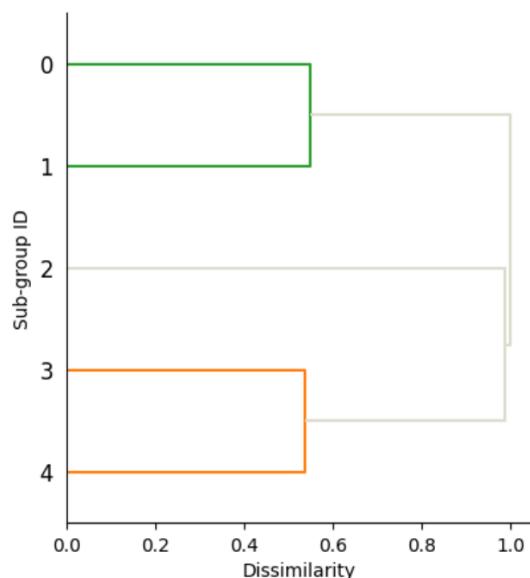
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



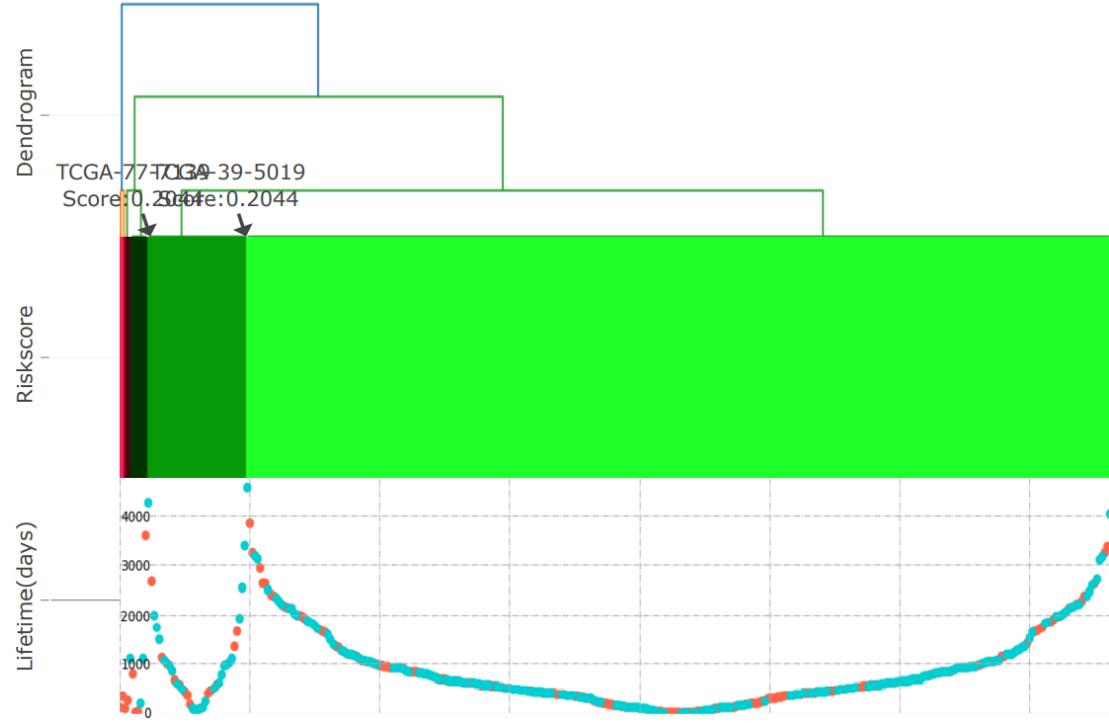
Re-hierarchical Clustering Tree



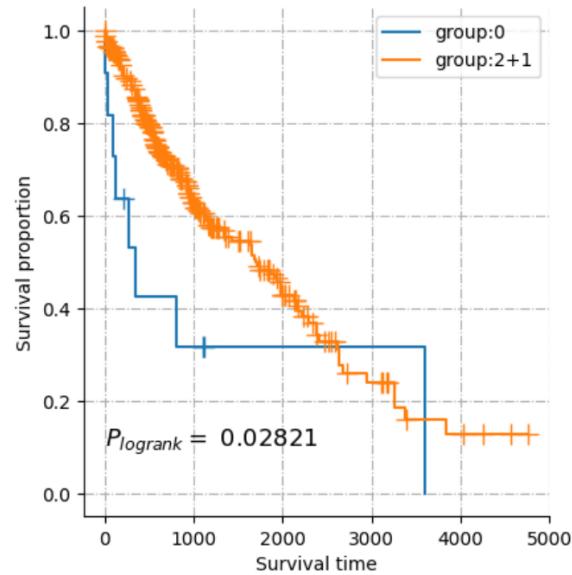
# microRNA(890)-10000-5

ID	Name
115	hsa-mir-1290

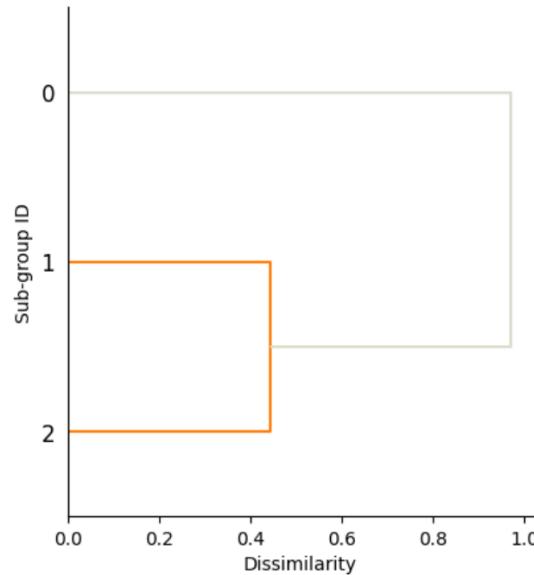
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



Re-hierarchical Clustering Tree

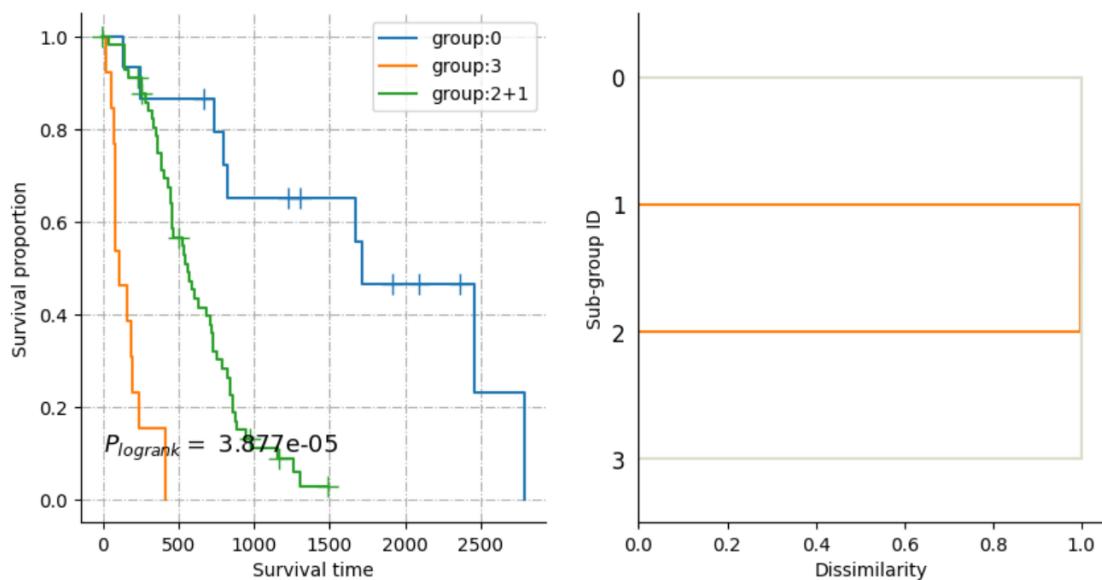
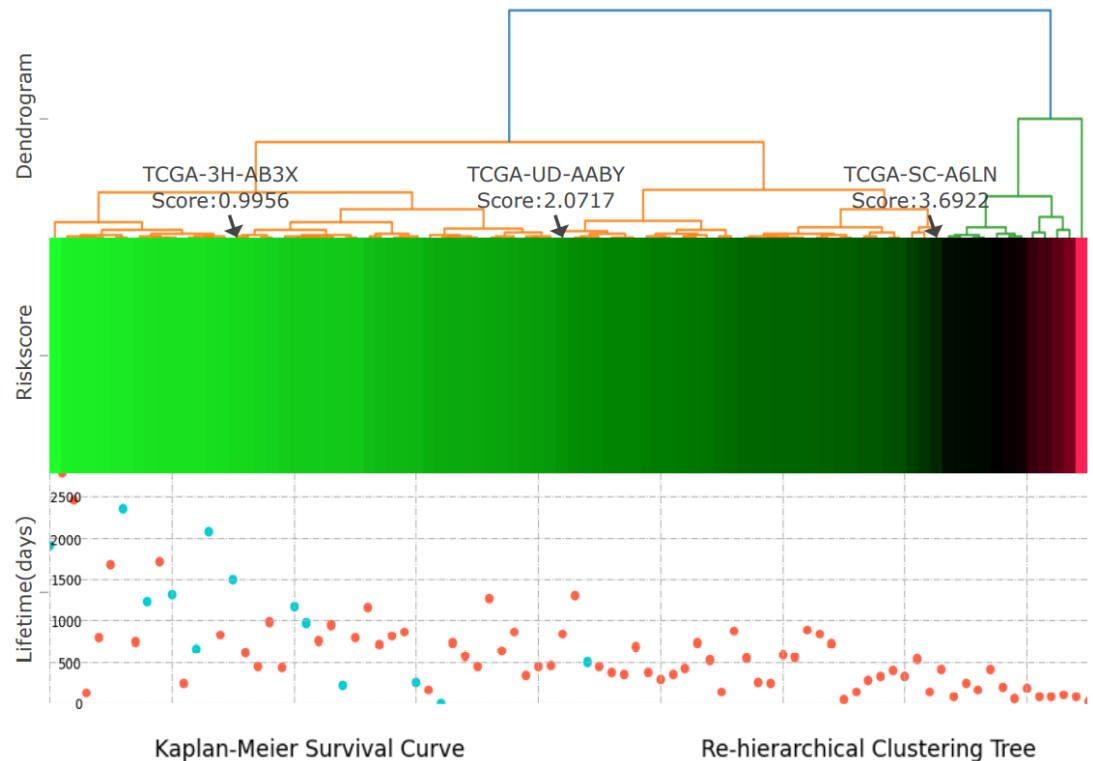


## TCGA-MESO

mRNA(19478)-10000-5

ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
1569	BRCA1	7419	GTSE1	9441	LMNB2	13300	POLQ	18389	UHRF1
3389	CDCA2	7754	HJURP	10461	MBOAT2	17747	TOP2A		
3624	CHAF1A	8906	KIF23	11370	NCAPG	17970	TROAP		

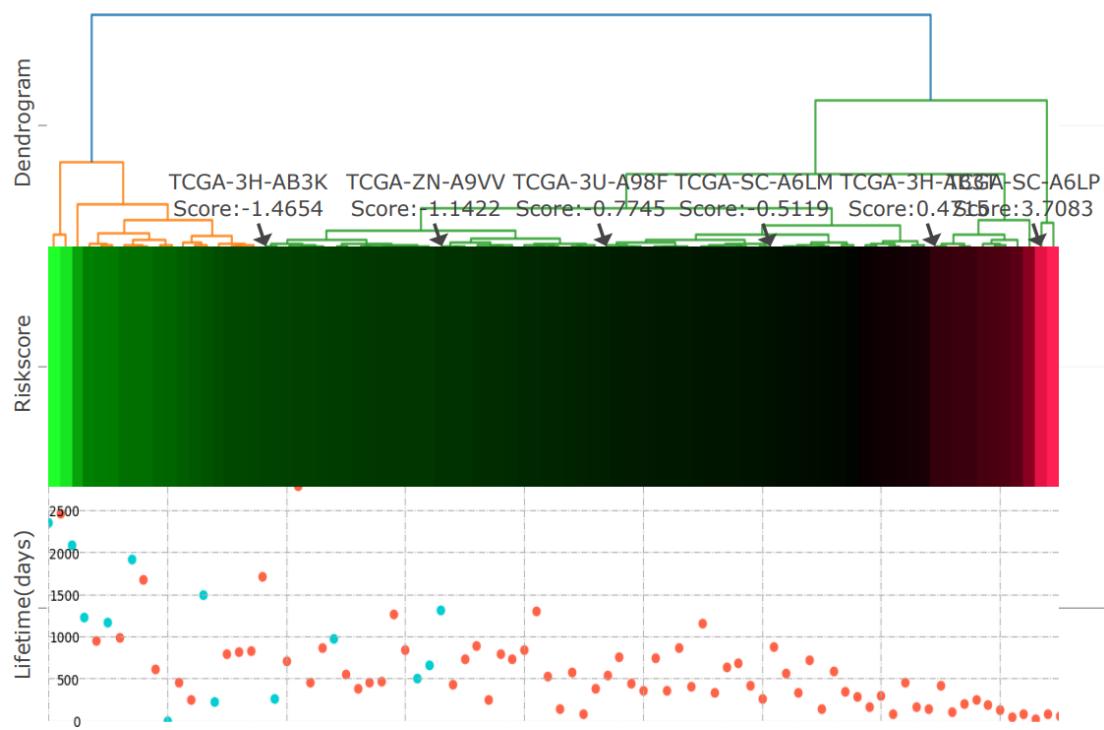
Riskscore & Lifetime Map



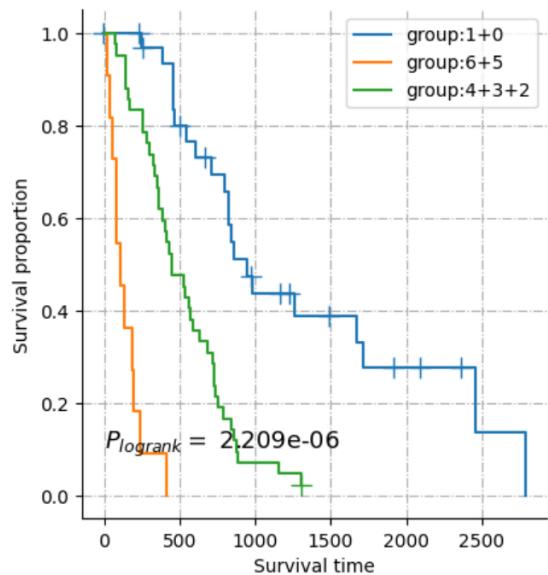
## microRNA(806)-10000-1

ID	Name	ID	Name	ID	Name	ID	Name
14	hsa-mir-101-1	145	hsa-mir-148b	499	hsa-mir-3928	617	hsa-mir-520f
73	hsa-mir-1264	190	hsa-mir-193a	604	hsa-mir-518e		
104	hsa-mir-1293	267	hsa-mir-29c	605	hsa-mir-518f		
120	hsa-mir-1323	473	hsa-mir-378c	606	hsa-mir-519a-1		

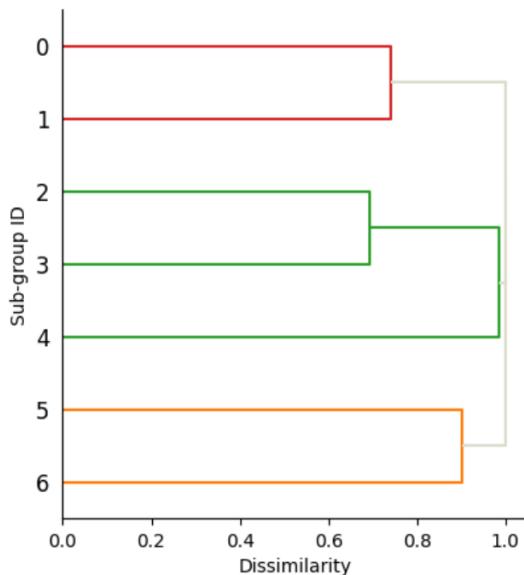
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



Re-hierarchical Clustering Tree

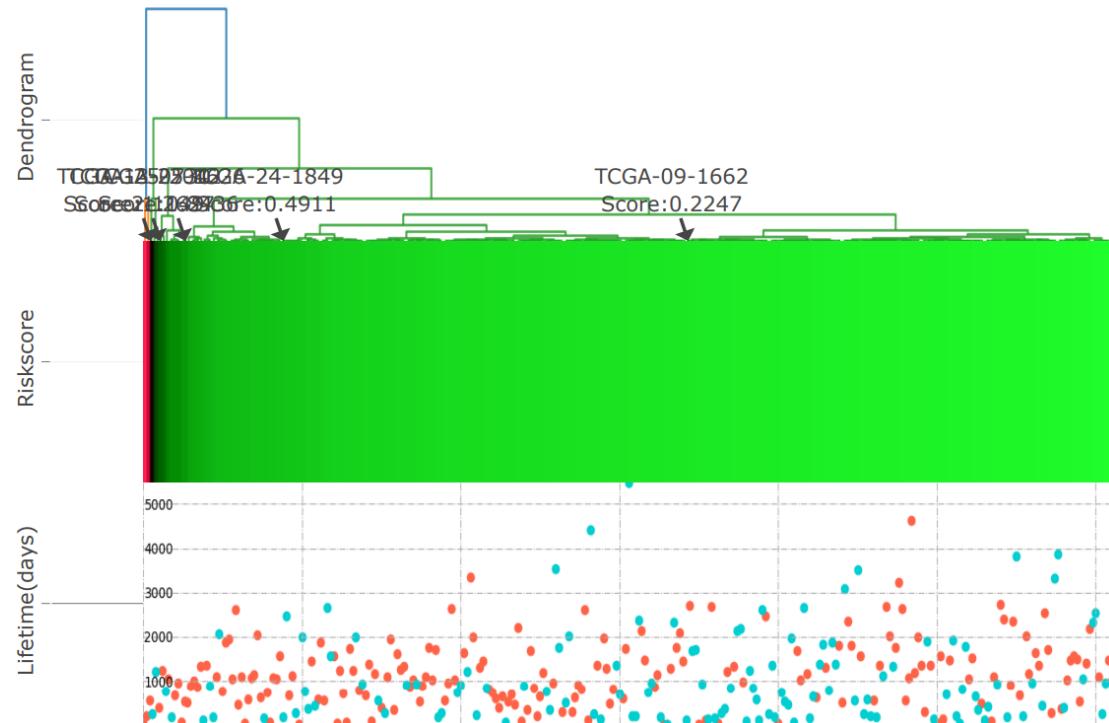


## TCGA-OV

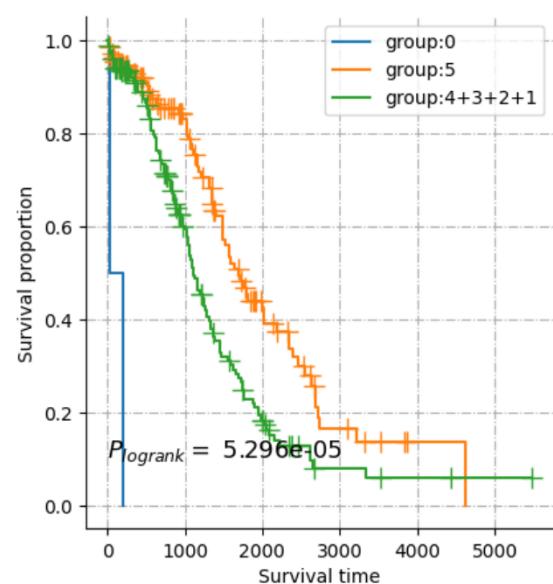
mRNA(20078)-10000-5

ID	Name	ID	Name
16583	SOCS7	19418	ZFHX4

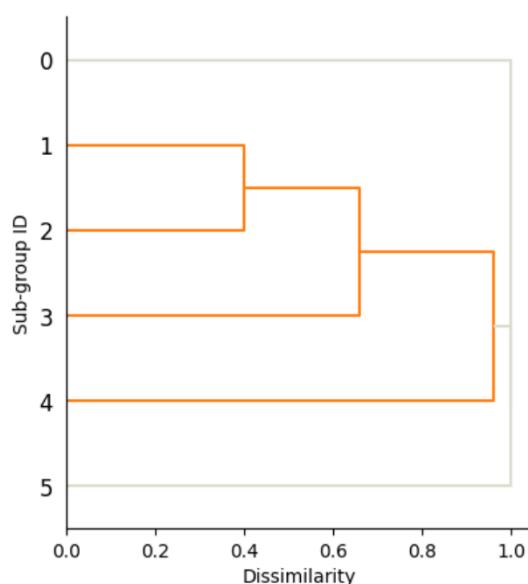
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



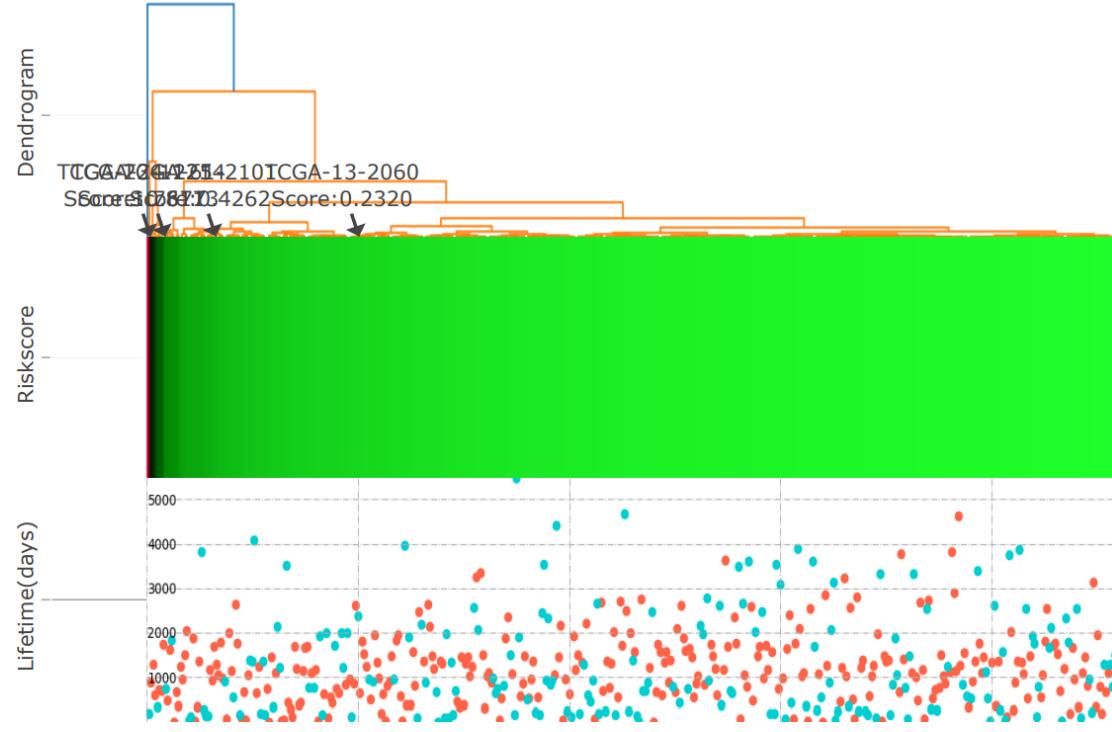
Re-hierarchical Clustering Tree



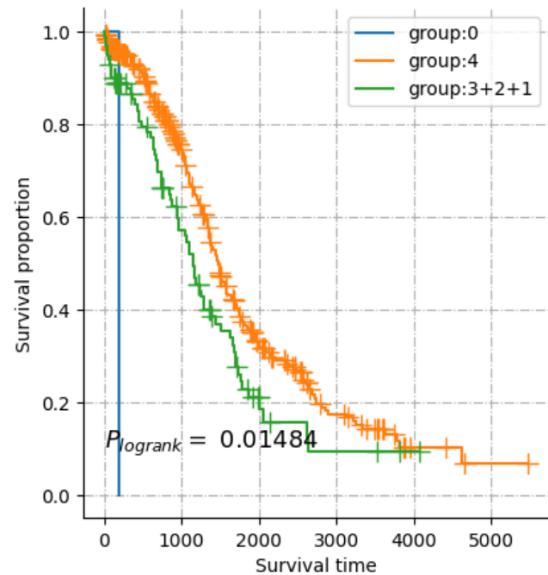
## microRNA(627)-20000-5

ID	Name	ID	Name	ID	Name
219	hsa-mir-199a-1	220	hsa-mir-199a-2	243	hsa-mir-214

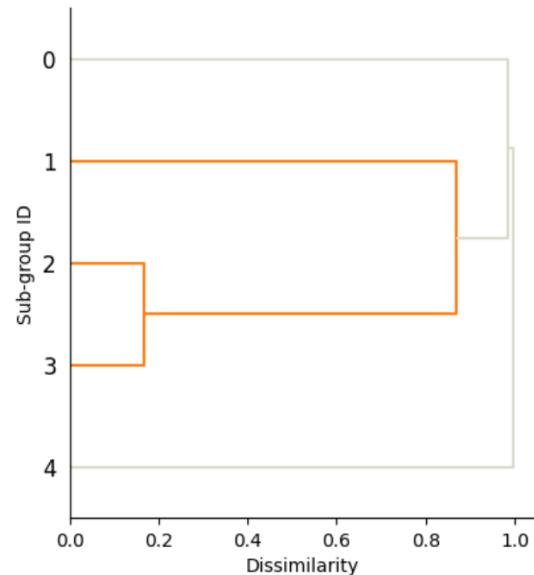
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



Re-hierarchical Clustering Tree

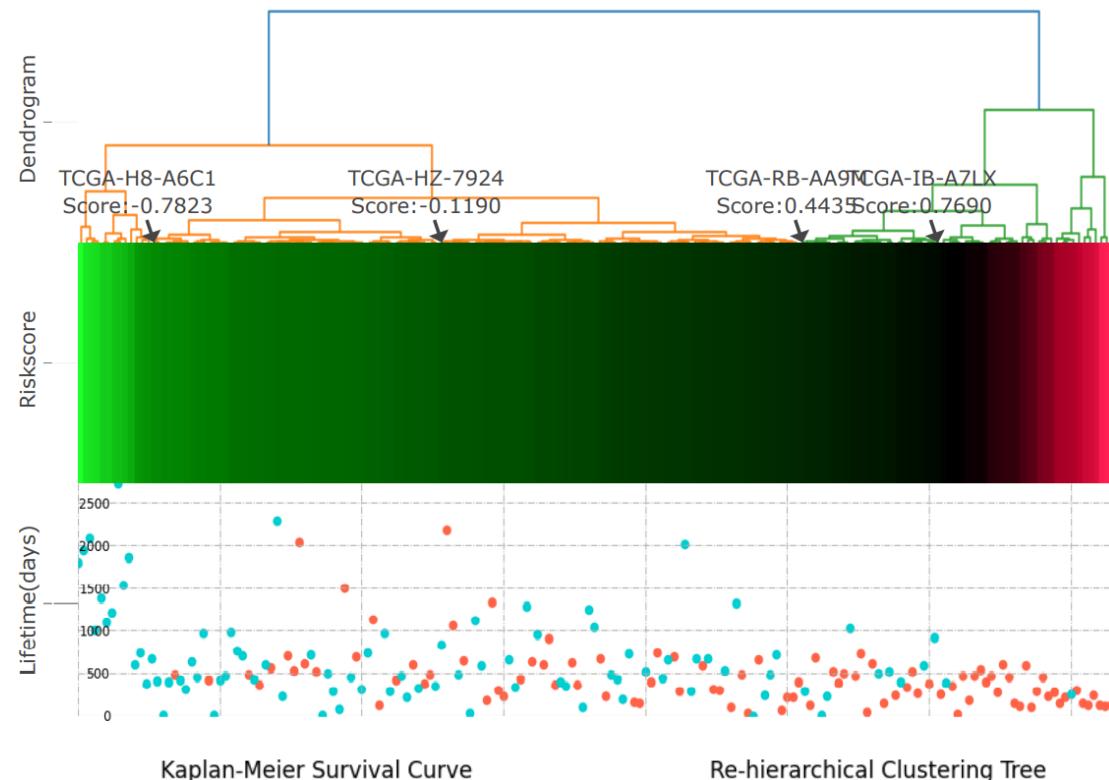


## TCGA-PAAD

mRNA(19938)-10000-5

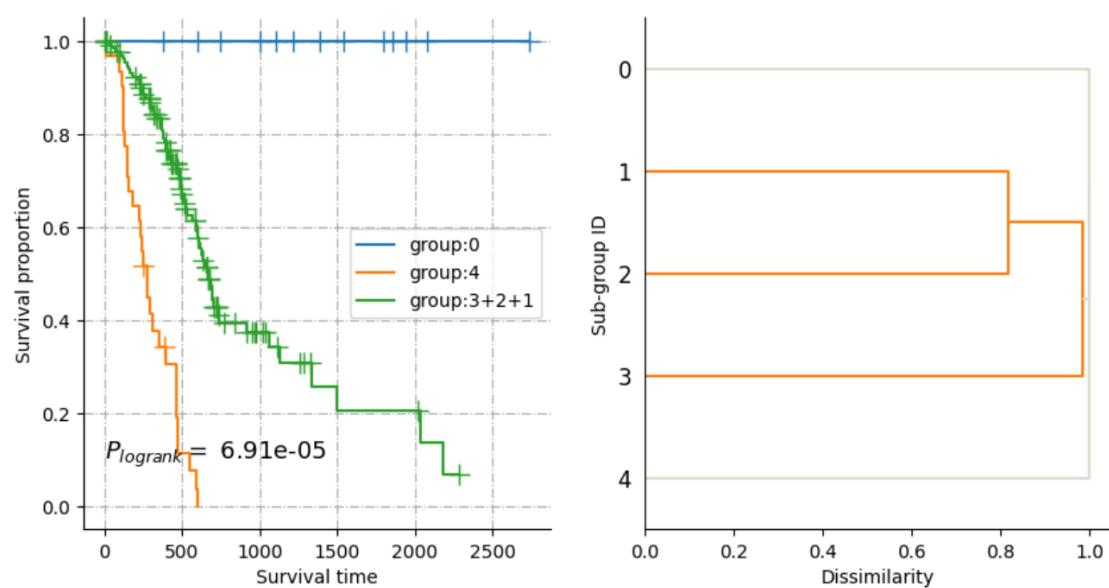
ID	Name	ID	Name	ID	Name	ID	Name
2160	C1orf129	8325	IL20RB	10268	LY6D	13650	PPP2R3A
5968	FAM196B	9982	LOC651250	10702	MET	14643	RHOF

Riskscore & Lifetime Map



Kaplan-Meier Survival Curve

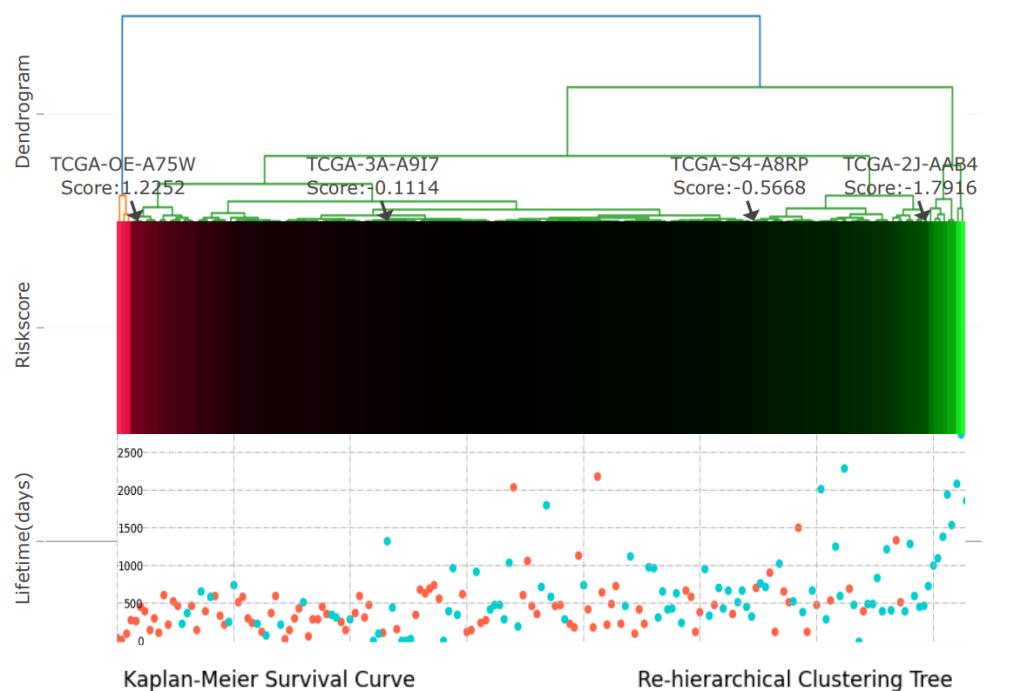
Re-hierarchical Clustering Tree



## microRNA(812)-20000-5

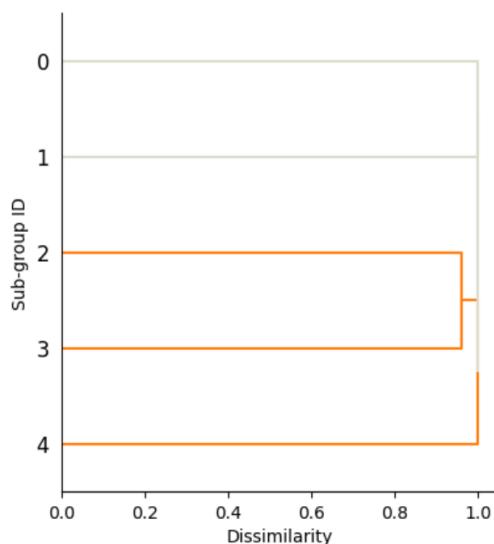
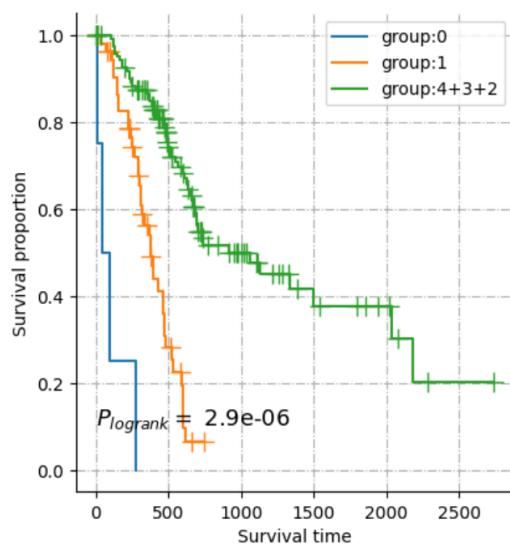
ID	Name	ID	Name	ID	Name	ID	Name
37	hsa-mir-1227	211	hsa-mir-203	563	hsa-mir-491	688	hsa-mir-584
44	hsa-mir-1238	231	hsa-mir-216b	564	hsa-mir-492	753	hsa-mir-676
72	hsa-mir-1266	310	hsa-mir-3149	570	hsa-mir-498	766	hsa-mir-770
90	hsa-mir-1283-2	367	hsa-mir-3202-1	577	hsa-mir-504	768	hsa-mir-873
92	hsa-mir-1285-1	381	hsa-mir-328	661	hsa-mir-548x		
108	hsa-mir-1301	454	hsa-mir-3685	682	hsa-mir-577		
151	hsa-mir-153-2	491	hsa-mir-3916	686	hsa-mir-581		

Riskscore & Lifetime Map



Kaplan-Meier Survival Curve

Re-hierarchical Clustering Tree

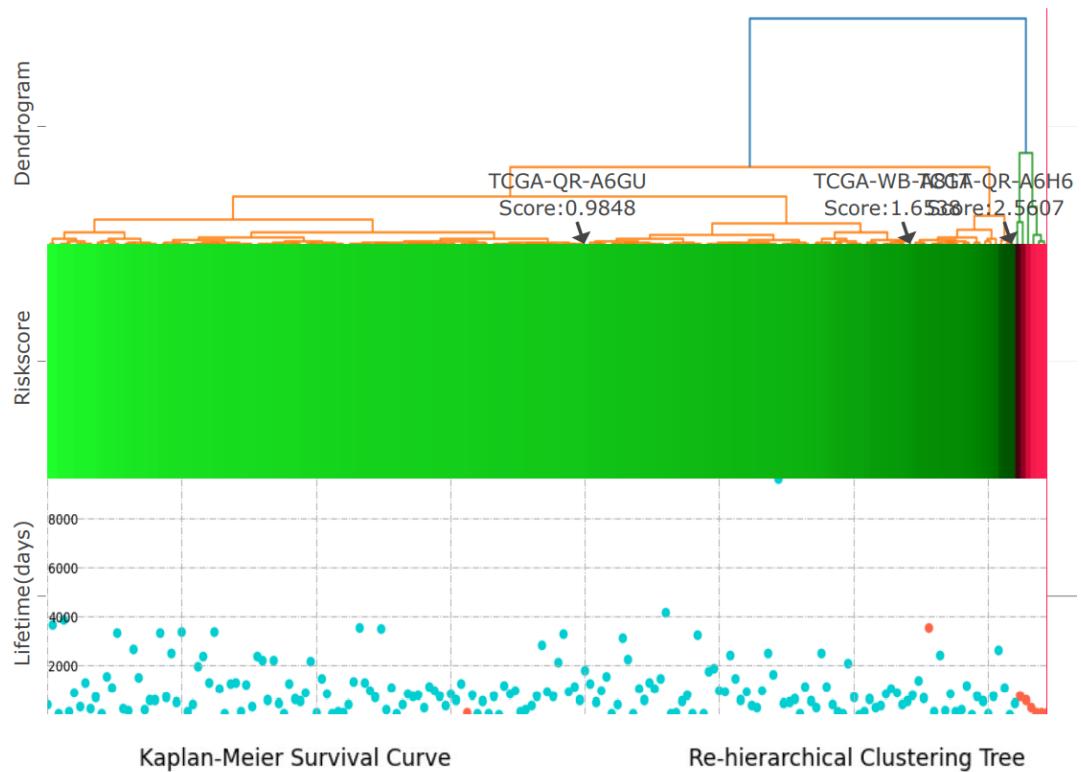


## TCGA-PCPG

mRNA(19841)-10000-5

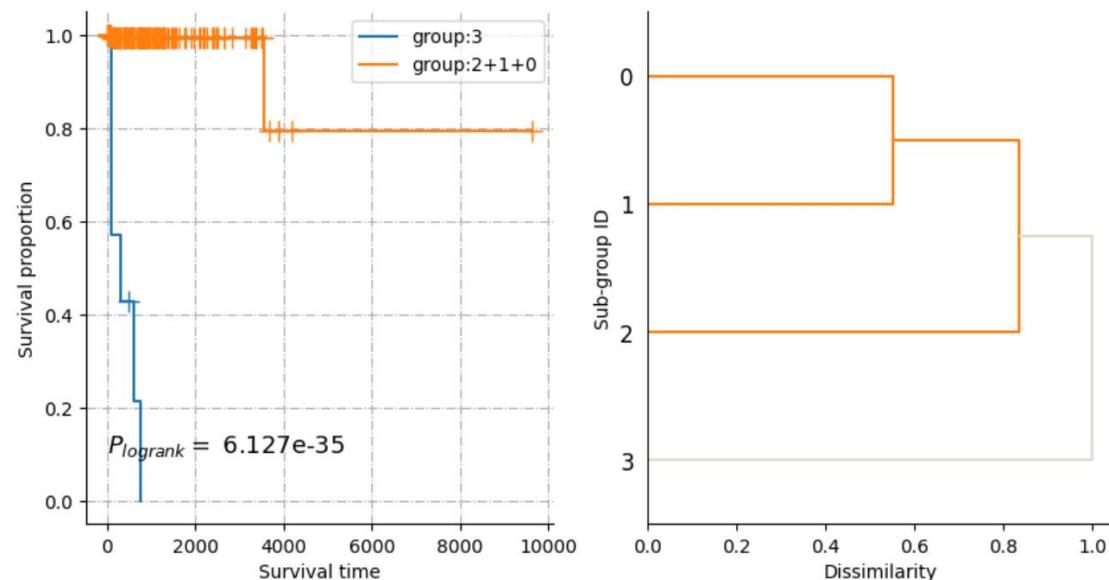
ID	Name	ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
1059	ARX	3909	CMTM5	6707	GAGE13	8889	KIAA1614	13411	POM121L12	18759	VSX2
2847	CACNG6	4758	DEGS2	8004	HSF2BP	9290	LCE1B	13693	PRKCB	19467	ZNF439
3408	CDH1	6389	FLJ25758	8394	INSM2	11085	MT1B	17756	TNFRSF10C		

Riskscore & Lifetime Map



Kaplan-Meier Survival Curve

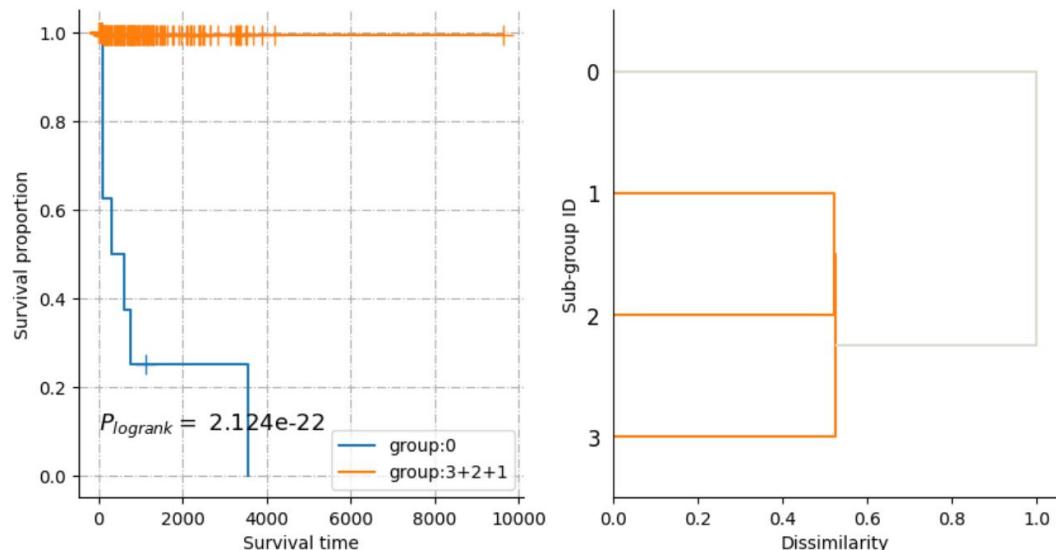
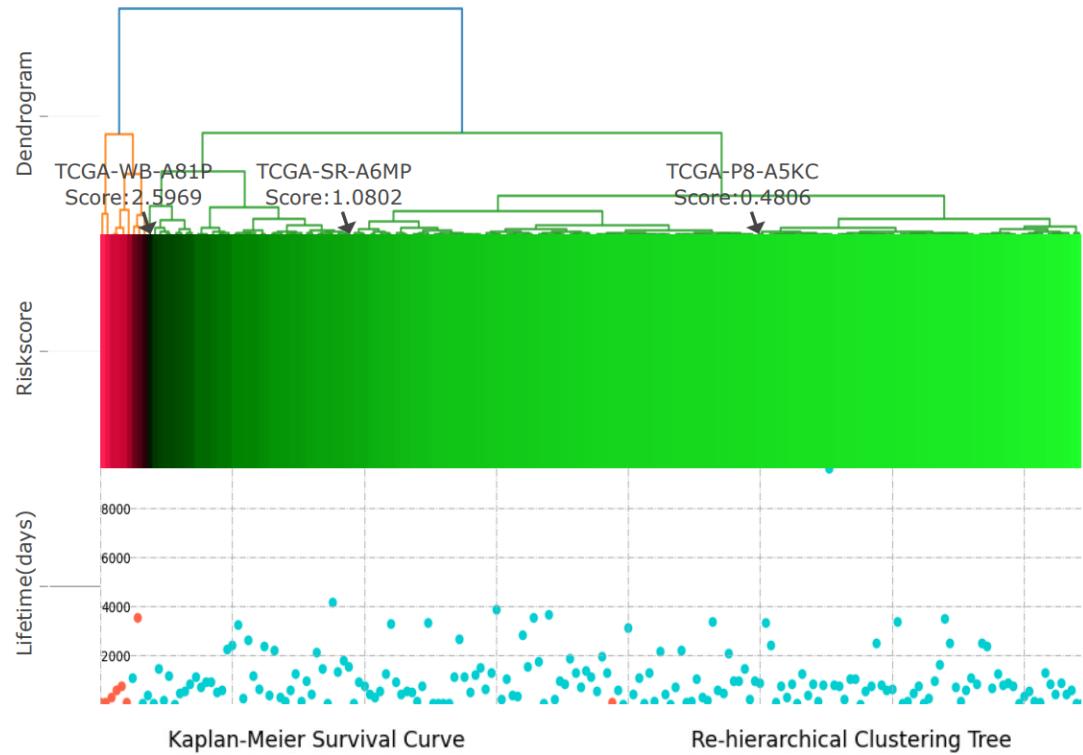
Re-hierarchical Clustering Tree



## microRNA(818)-20000-5

ID	Name	ID	Name	ID	Name	ID	Name
77	hsa-mir-1269	382	hsa-mir-324	564	hsa-mir-490	782	hsa-mir-885
168	hsa-mir-182	397	hsa-mir-345	661	hsa-mir-548s	801	hsa-mir-935
170	hsa-mir-183	410	hsa-mir-3613	665	hsa-mir-548w	810	hsa-mir-96
174	hsa-mir-187	444	hsa-mir-367	698	hsa-mir-587		
217	hsa-mir-208b	483	hsa-mir-383	713	hsa-mir-609		
267	hsa-mir-301a	563	hsa-mir-489	742	hsa-mir-653		

Riskscore & Lifetime Map

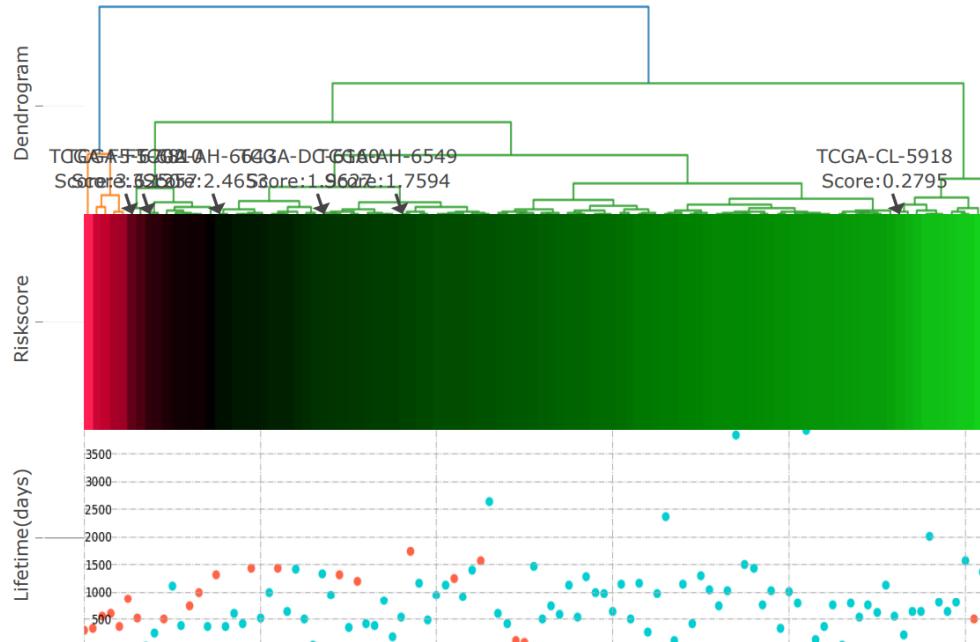


## TCGA-READ

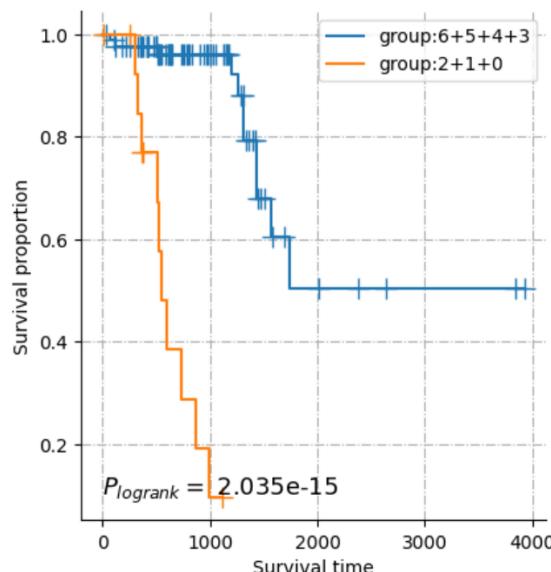
mRNA(19632)-10000-5

ID	Name	ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
2189	C1orf227	4889	DLEU2	6915	GJB2	8357	INTS6	12561	PCDHGB5	13789	PTGIS
3737	CITED1	5249	ECM1	7082	GOLGA8F	8420	IRX1	12565	PCDHGC3	15759	SLC39A1
4235	CSDC2	6055	FAM84A	7129	GPHA2	8938	KLF17	13012	PLA2G2F	17190	TIMP1
4278	CST2	6911	GJA5	8153	IGFBP3	11595	NINJ2	13785	PTGES	19565	ZNF880

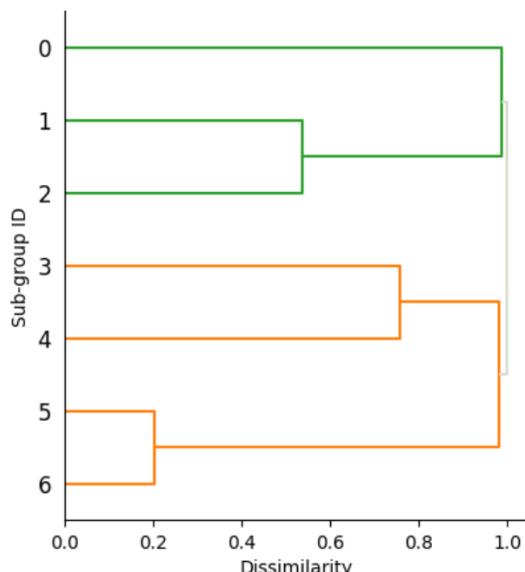
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



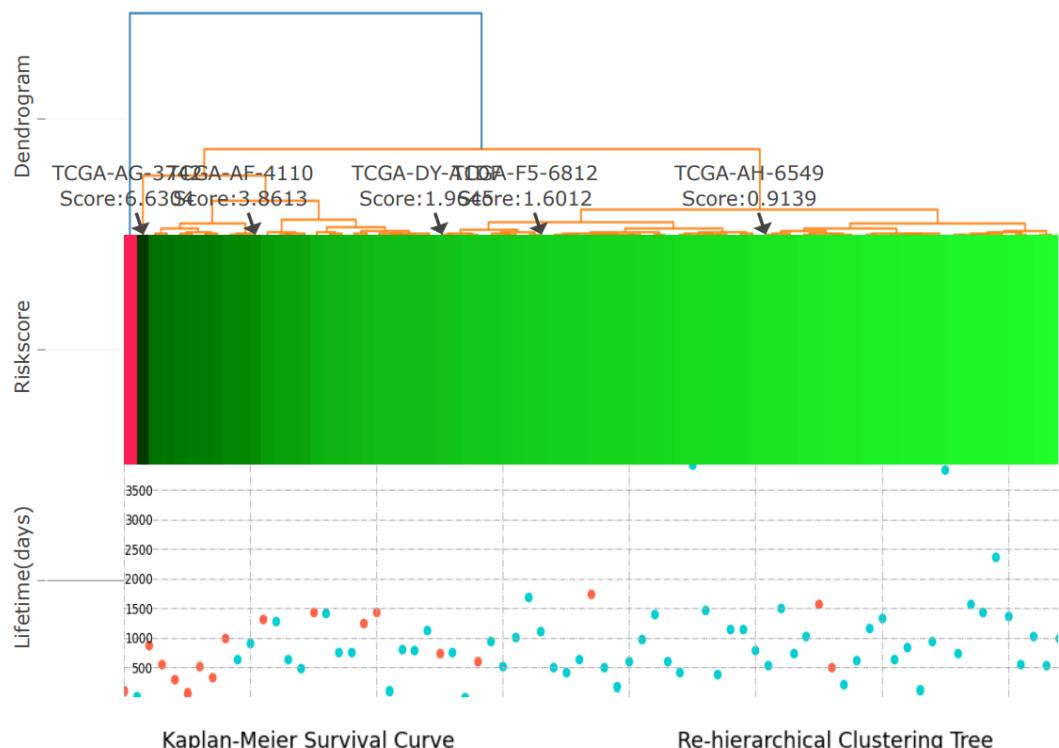
Re-hierarchical Clustering Tree



## microRNA(603)-20000-5

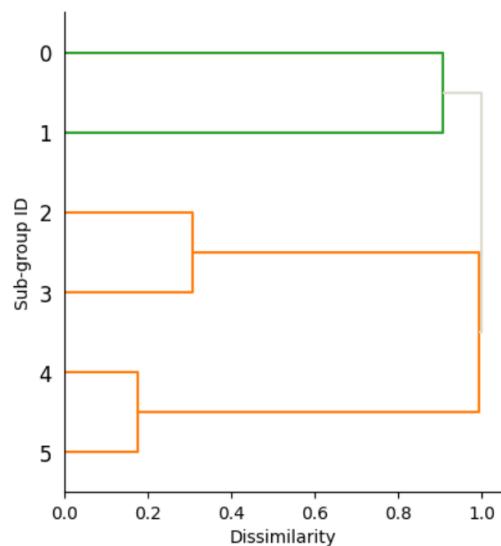
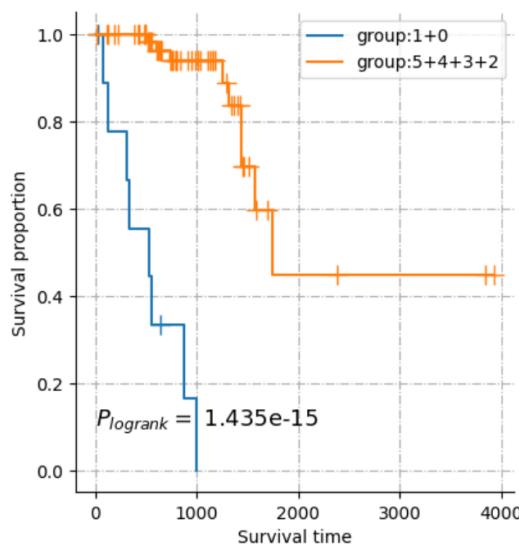
ID	Name	ID	Name	ID	Name	ID	Name
4	hsa-let-7c	301	hsa-mir-34b	392	hsa-mir-514-3	490	hsa-mir-599
51	hsa-mir-1244	330	hsa-mir-412	399	hsa-mir-517a	525	hsa-mir-648
78	hsa-mir-1271	338	hsa-mir-432	400	hsa-mir-517b	538	hsa-mir-662
119	hsa-mir-1323	381	hsa-mir-510	416	hsa-mir-520b	540	hsa-mir-663b
226	hsa-mir-211	390	hsa-mir-514-1	445	hsa-mir-548j	585	hsa-mir-936
264	hsa-mir-302a	391	hsa-mir-514-2	448	hsa-mir-548n	586	hsa-mir-937

Riskscore & Lifetime Map



Kaplan-Meier Survival Curve

Re-hierarchical Clustering Tree

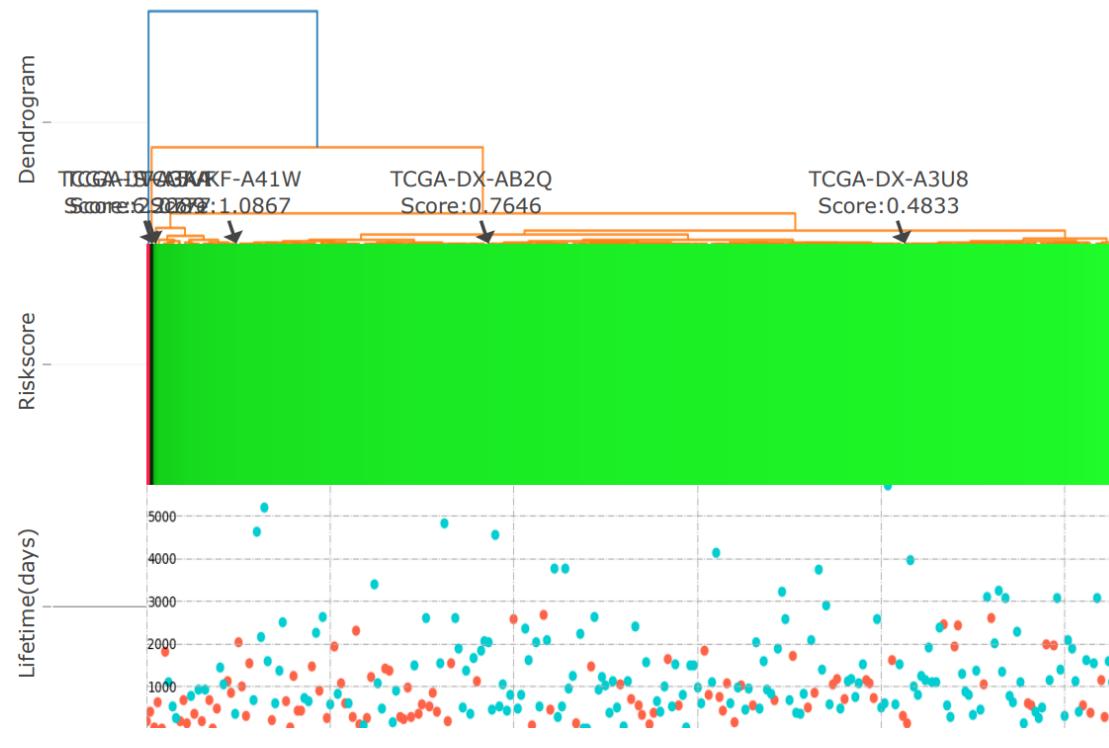


## TCGA-SARC

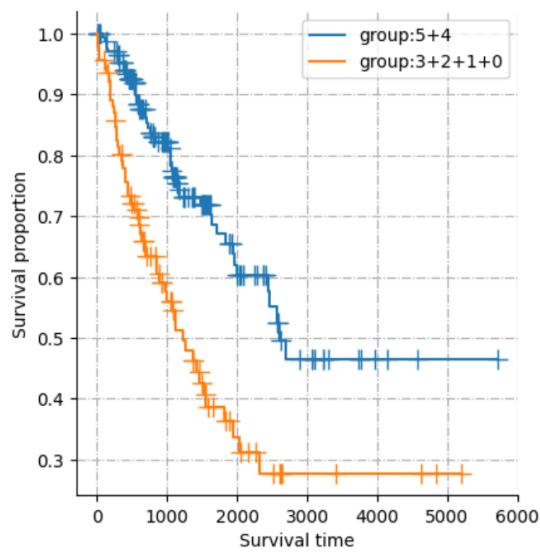
mRNA(20160)-10000-5

ID	Name
7057	GLO1

Riskscore & Lifetime Map

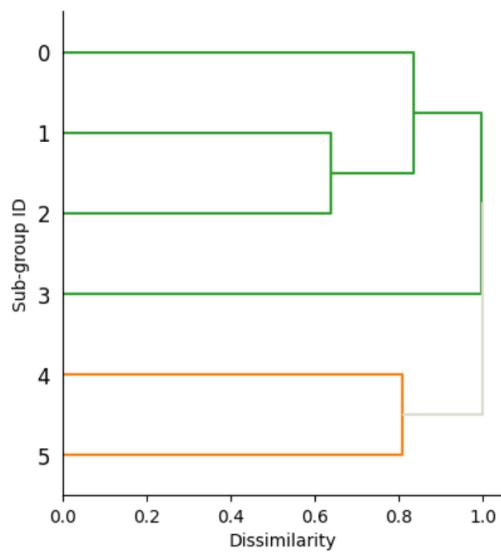


Kaplan-Meier Survival Curve



$$P_{logrank} = 8.048e-06$$

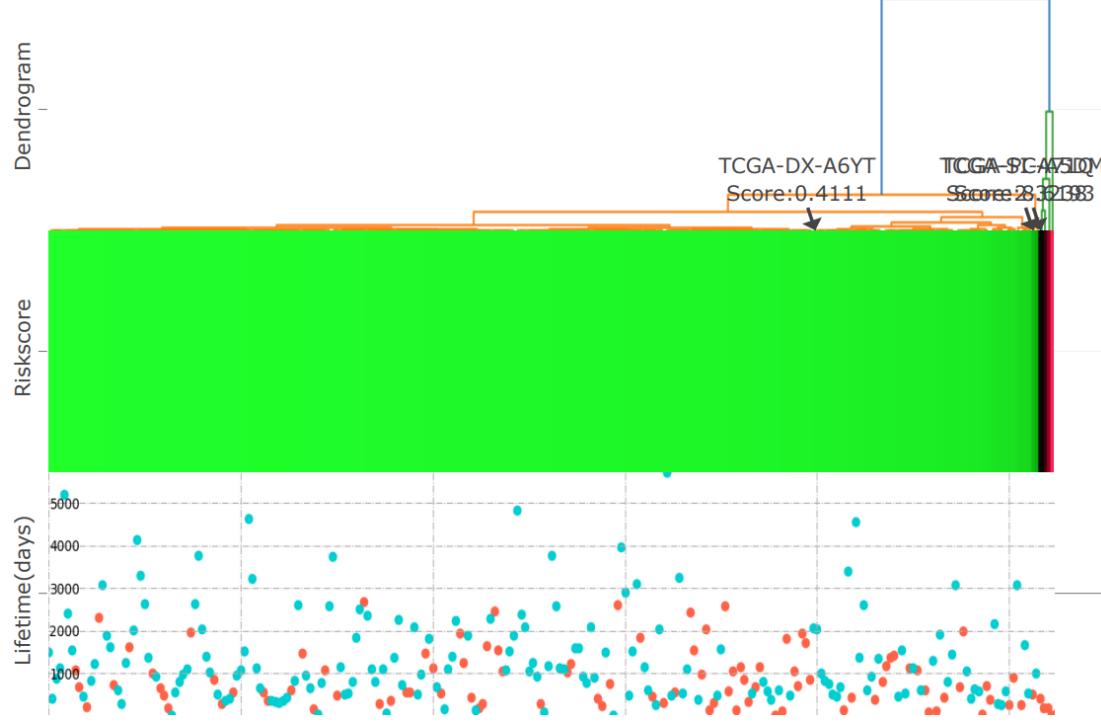
Re-hierarchical Clustering Tree



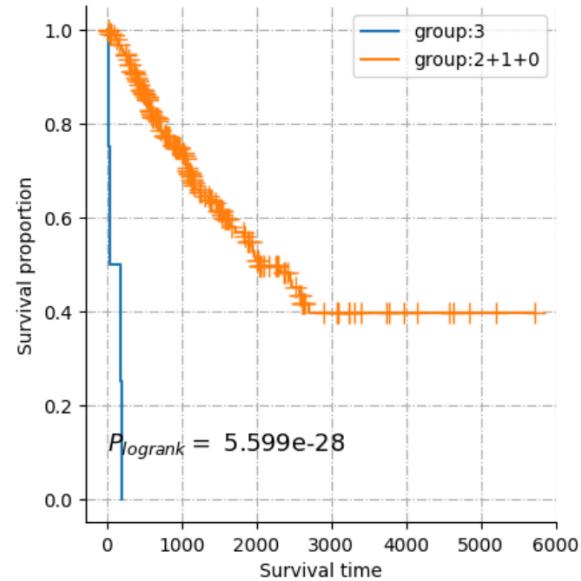
## microRNA(843)-20000-5

ID	Name	ID	Name	ID	Name	ID	Name
381	hsa-mir-3200	442	hsa-mir-3652	501	hsa-mir-3907	817	hsa-mir-922

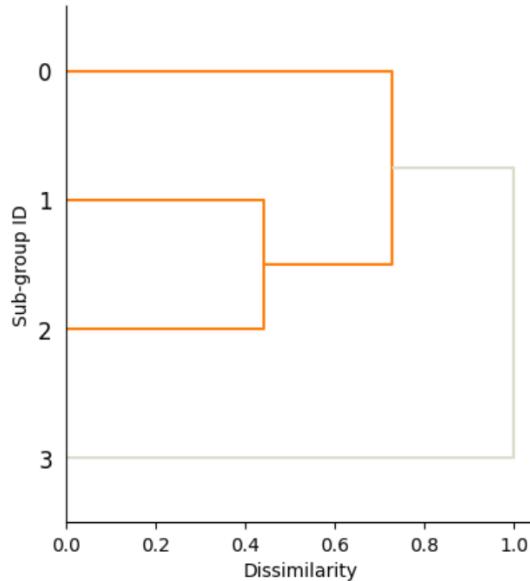
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



Re-hierarchical Clustering Tree

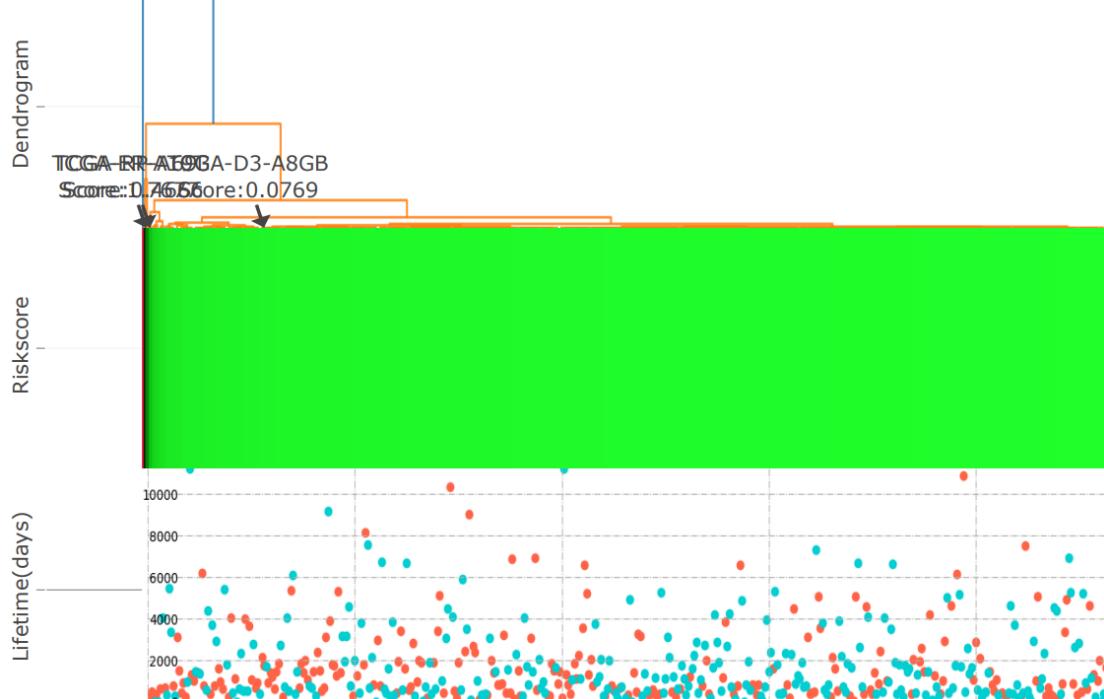


## TCGA-SKCM

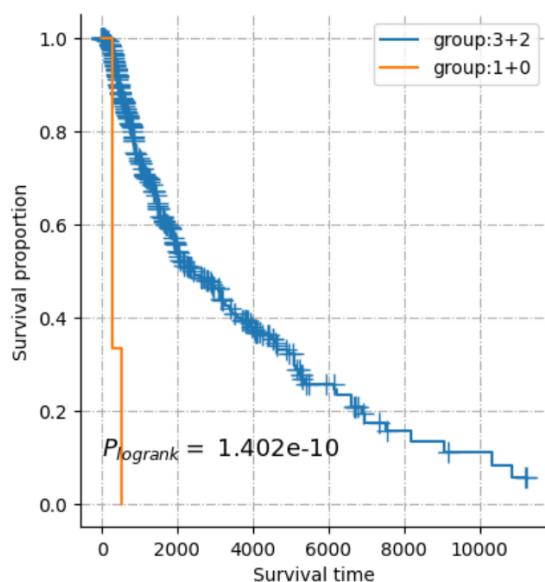
mRNA(20155)-10000-5

ID	Name
14328	PXDNL

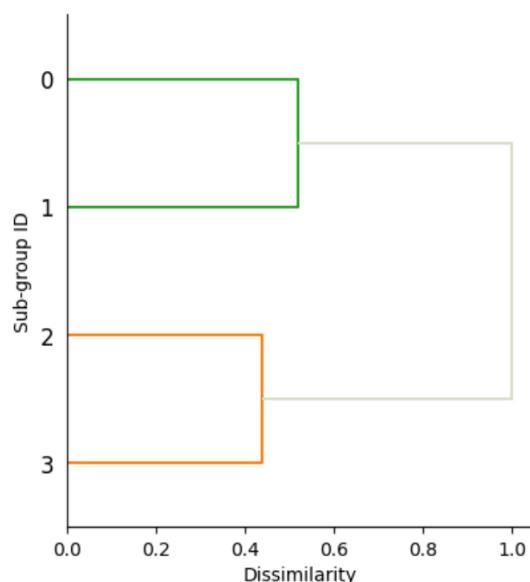
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



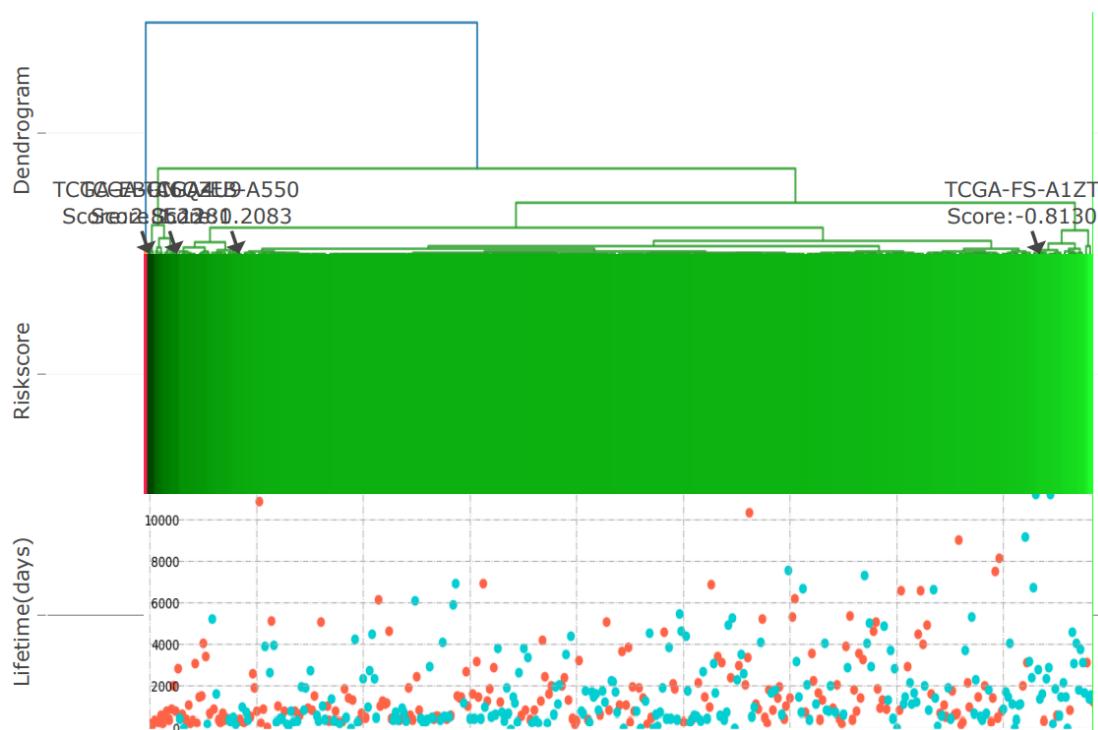
Re-hierarchical Clustering Tree



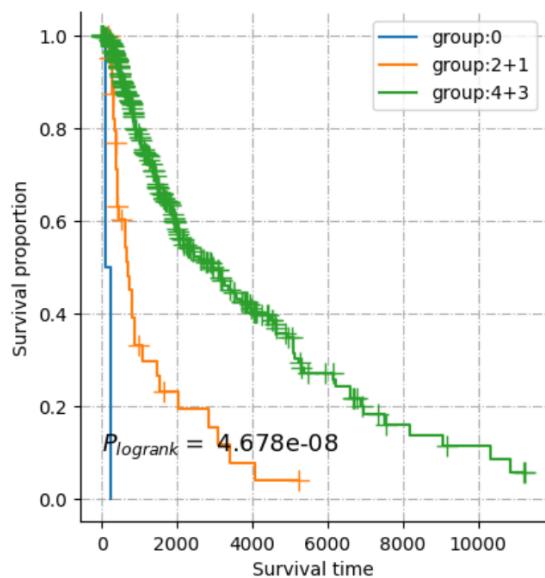
## microRNA(905)-20000-5

ID	Name	ID	Name	ID	Name	ID	Name
56	hsa-mir-1244-1	218	hsa-mir-1972-1	718	hsa-mir-548i-2	869	hsa-mir-890
60	hsa-mir-1246	288	hsa-mir-29c	750	hsa-mir-571		
112	hsa-mir-1289-2	546	hsa-mir-3927	815	hsa-mir-642b		
188	hsa-mir-1827	575	hsa-mir-4265	817	hsa-mir-644		

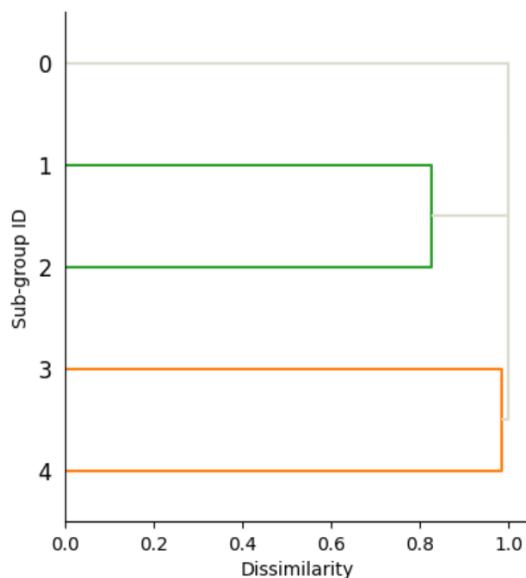
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



Re-hierarchical Clustering Tree

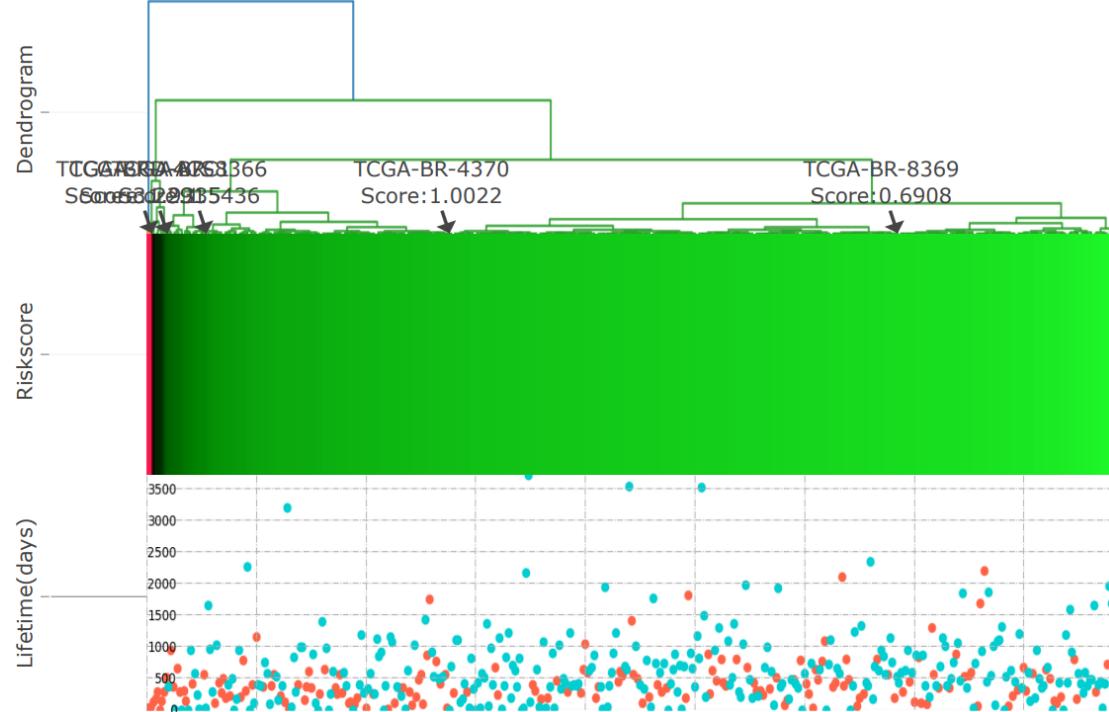


## TCGA-STAD

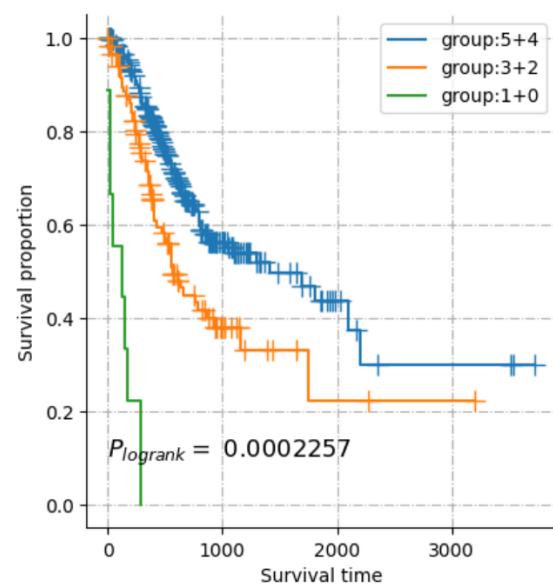
mRNA(20155)-10000-5

ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
3536	CEACAM3	3629	CFDP1	6886	GBAS	11177	MRPS17	11213	MS4A4A

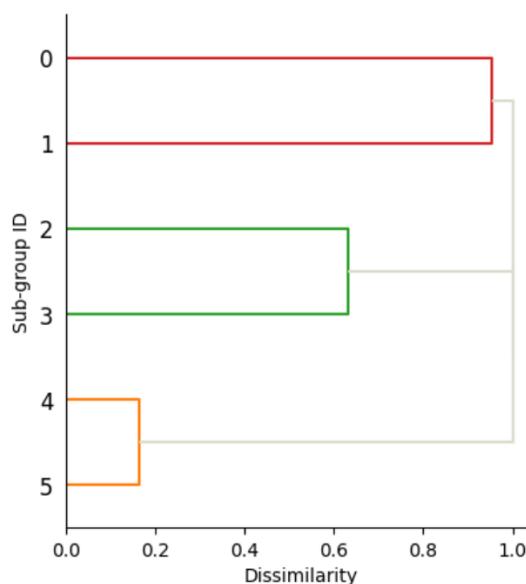
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



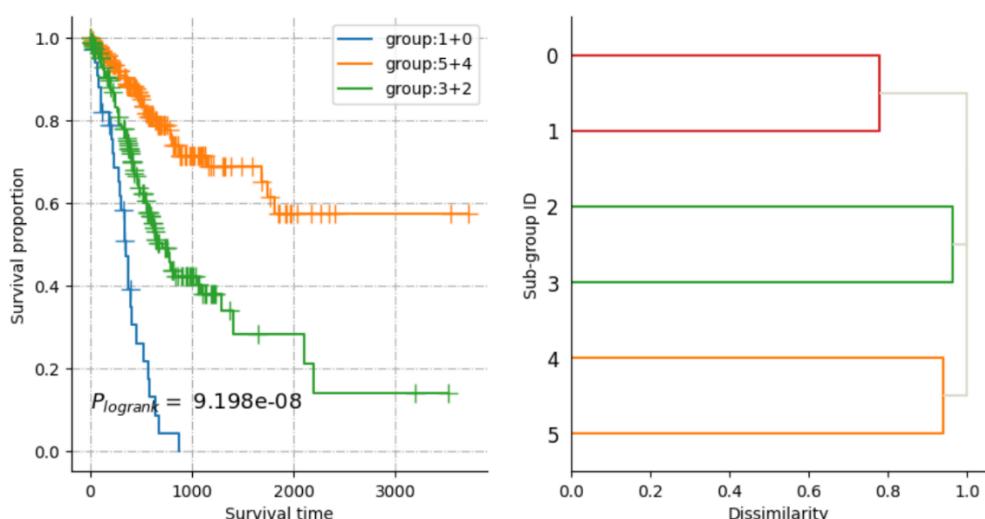
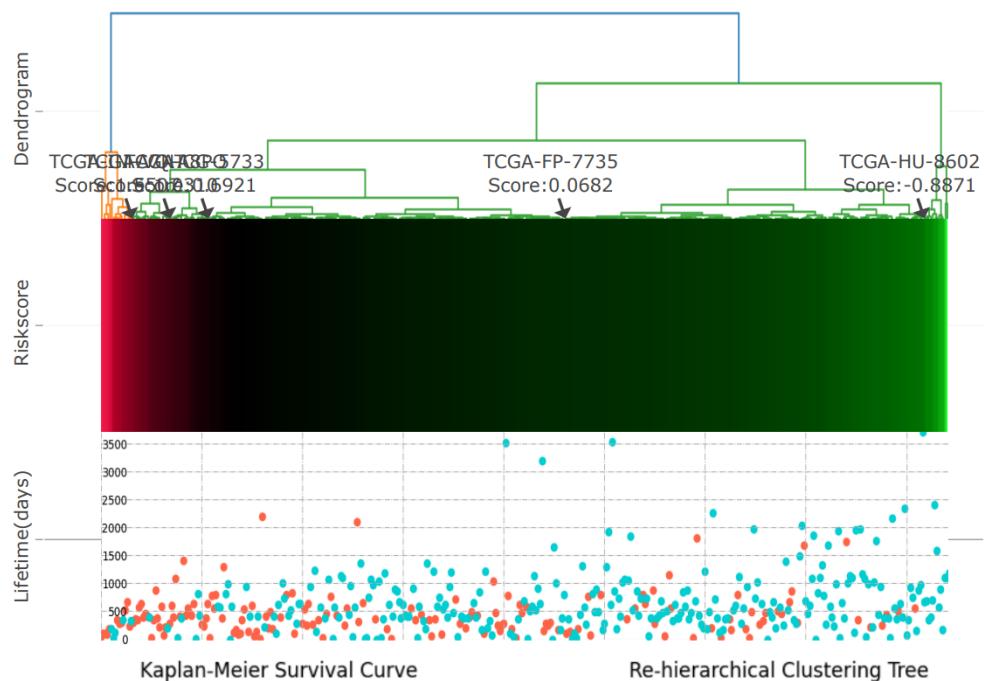
Re-hierarchical Clustering Tree



## microRNA(872)-1000-5

ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
21	hsa-mir-106b	231	hsa-mir-21	406	hsa-mir-330	564	hsa-mir-4289	754	hsa-mir-603
36	hsa-mir-122	237	hsa-mir-2115	440	hsa-mir-3622b	613	hsa-mir-500b	765	hsa-mir-616
64	hsa-mir-1255a	293	hsa-mir-3115	527	hsa-mir-3923	678	hsa-mir-532	794	hsa-mir-653
121	hsa-mir-1304	343	hsa-mir-3161	528	hsa-mir-3924	686	hsa-mir-548a-3	808	hsa-mir-668
182	hsa-mir-184	362	hsa-mir-3180-1	535	hsa-mir-3934	722	hsa-mir-561	850	hsa-mir-93
196	hsa-mir-1912	368	hsa-mir-3183	536	hsa-mir-3935	724	hsa-mir-567		
202	hsa-mir-193b	369	hsa-mir-3184	544	hsa-mir-3943	727	hsa-mir-572		
225	hsa-mir-205	384	hsa-mir-3199-1	552	hsa-mir-422a	748	hsa-mir-597		

Riskscore & Lifetime Map

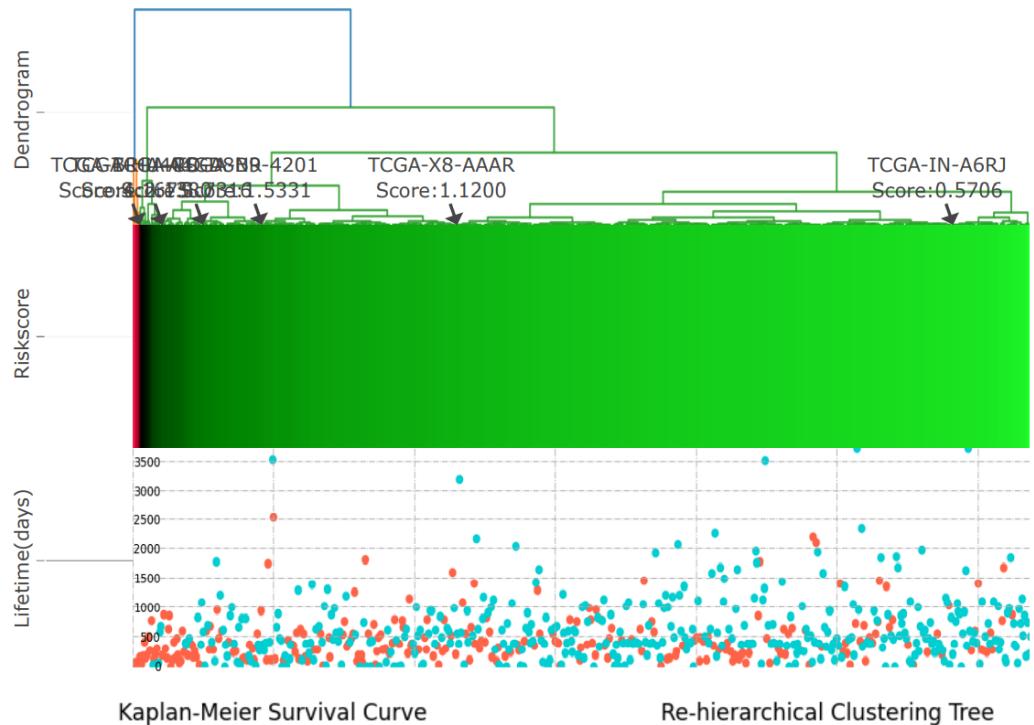


## TCGA-STES

mRNA(20290)-10000-5

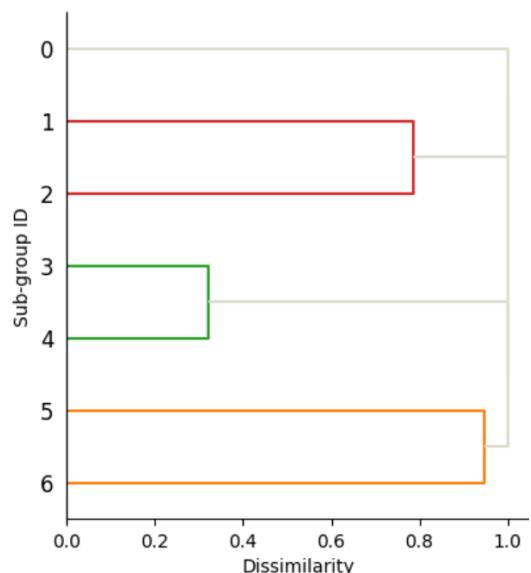
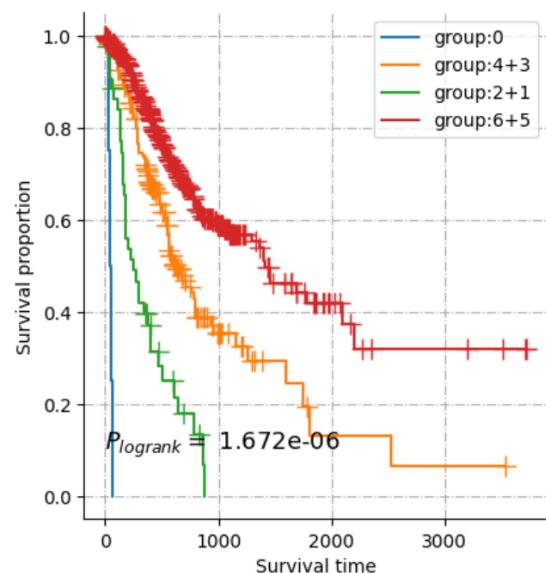
ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
406	AG2	6029	FAM198B	10493	MAGED1	13129	PDE1B	17762	THSD7A
3343	CD36	8267	IFNA14	10546	MAP1LC3B	13472	PKD1L1	18913	UGT2B10
3452	CDH6	9447	LCE3E	11535	NAP1L6	14113	PROS1	19221	VWF
5373	EDNRA	9797	LOC146481	12110	NRP1	16338	SLC45A2		

Riskscore & Lifetime Map



Kaplan-Meier Survival Curve

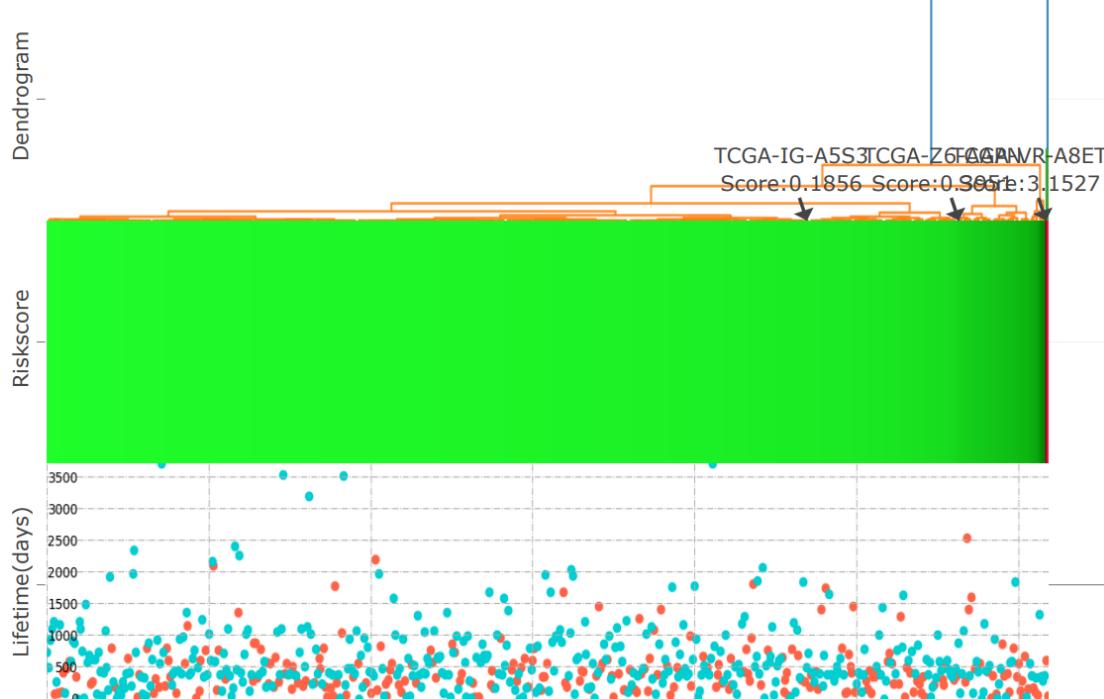
Re-hierarchical Clustering Tree



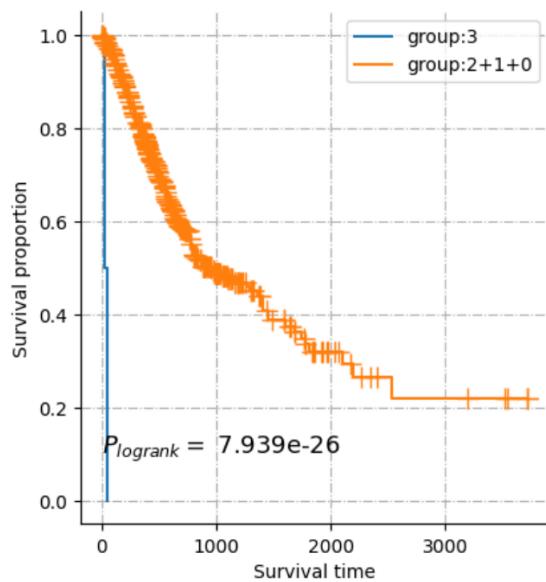
## microRNA(893)-20000-5

ID	Name	ID	Name	ID	Name
176	hsa-mir-181a-1	428	hsa-mir-3606	525	hsa-mir-3914-2

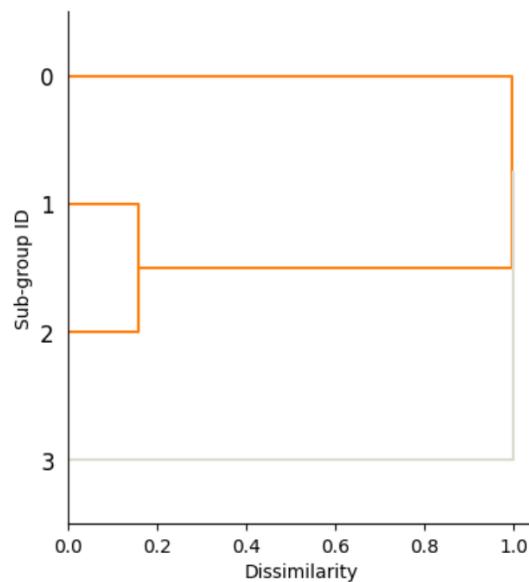
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



Re-hierarchical Clustering Tree

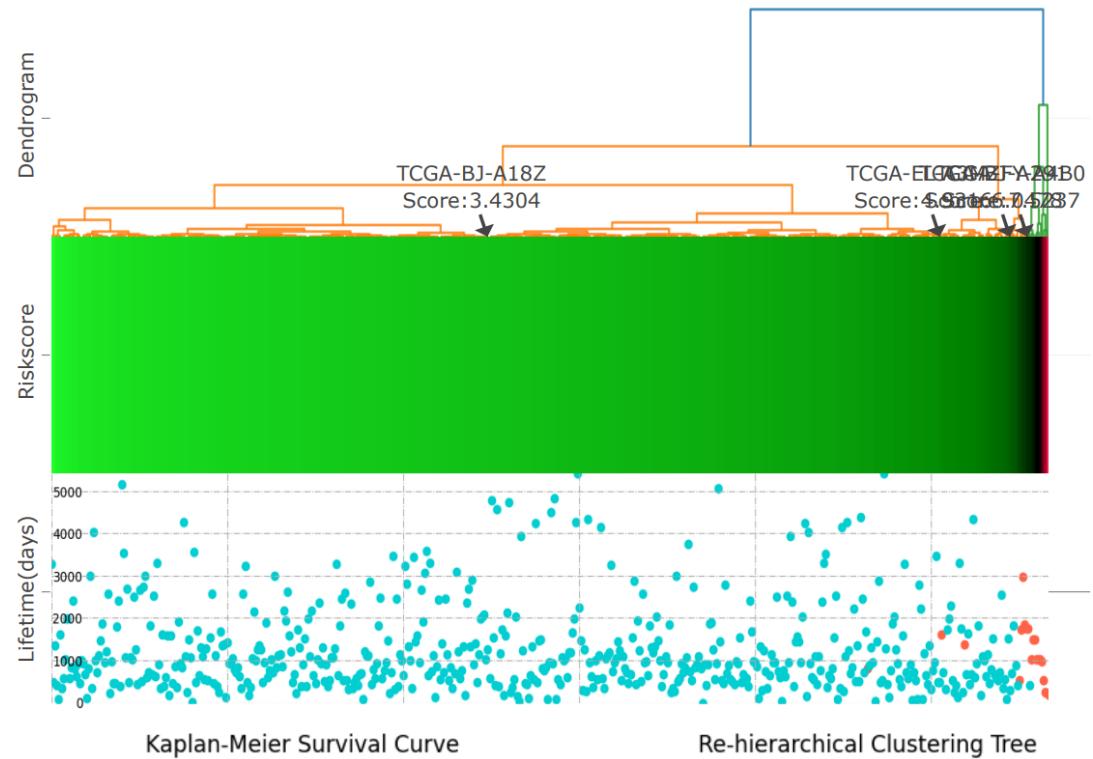


## TCGA-THCA

mRNA(20015)-10000-5

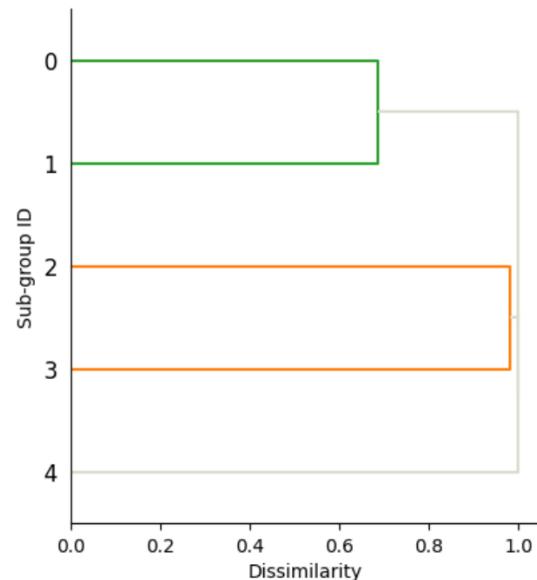
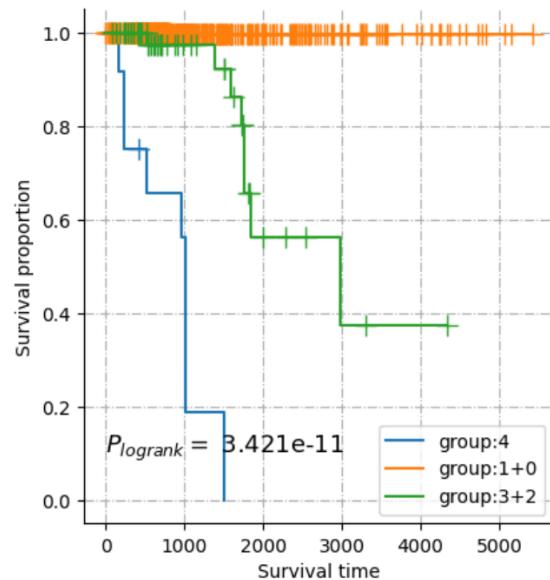
ID	Name	ID	Name	ID	Name	ID	Name		
1071	ASA2H	6580	FOXR2	12838	PCDHB6	13902	PROKR1	18126	TREM1
1332	B3GNT6	6887	GDPD4	13314	PLA2G4D	14707	RHBDL1	18149	TRIM16L
3166	CCDC78	9618	LOC100133469	13594	POTED	15215	S100A9		

Riskscore & Lifetime Map



Kaplan-Meier Survival Curve

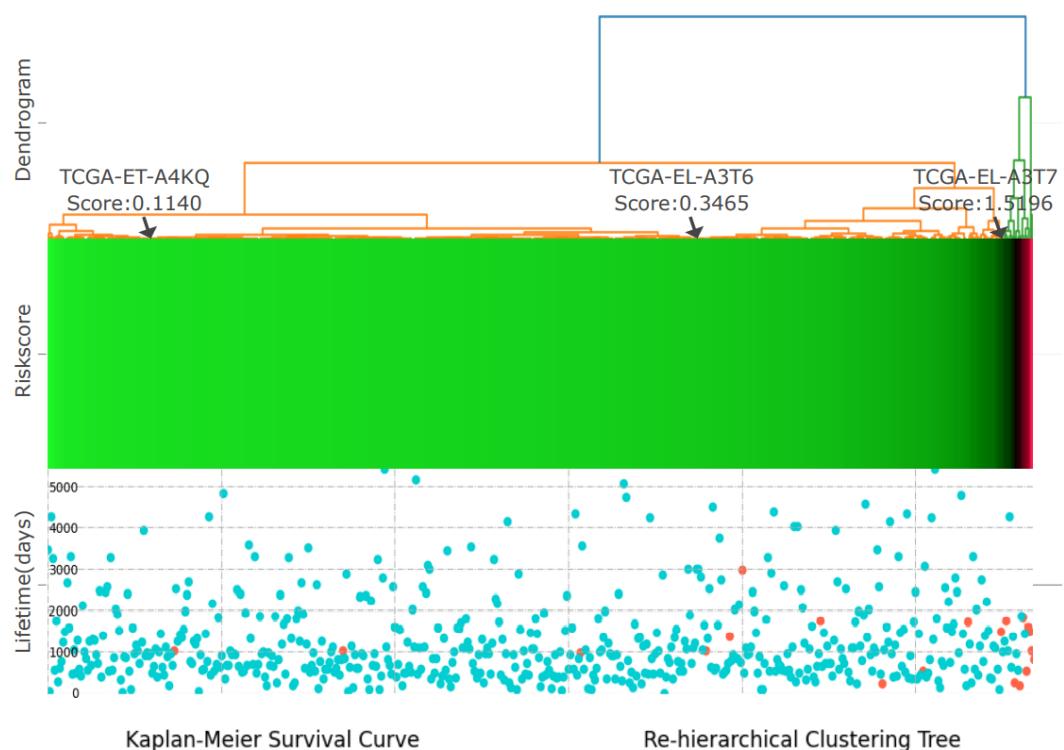
Re-hierarchical Clustering Tree



## microRNA(902)-20000-5

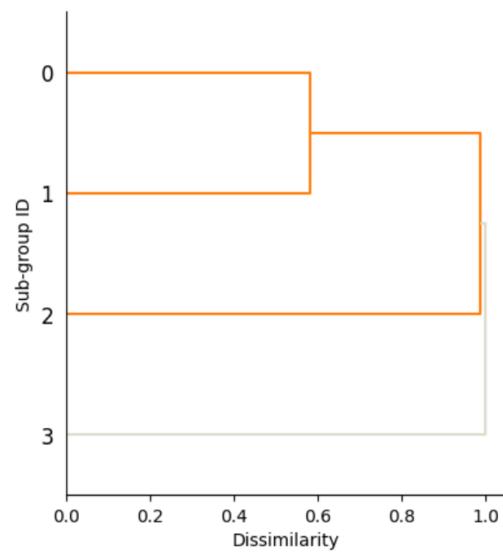
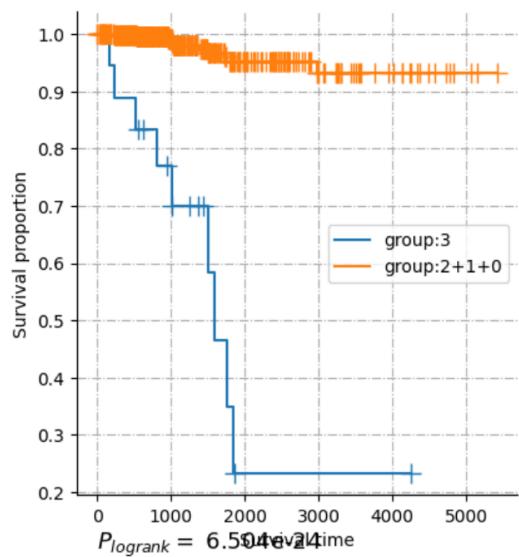
ID	Name	ID	Name	ID	Name	ID	Name
30	hsa-mir-1182	388	hsa-mir-3196	591	hsa-mir-4317	796	hsa-mir-622
38	hsa-mir-1203	470	hsa-mir-3666	595	hsa-mir-4323	818	hsa-mir-647
59	hsa-mir-1244-2	487	hsa-mir-3687	777	hsa-mir-601	832	hsa-mir-663
64	hsa-mir-1248	561	hsa-mir-425	787	hsa-mir-612	875	hsa-mir-921
343	hsa-mir-3156-3	567	hsa-mir-4264	789	hsa-mir-614		
349	hsa-mir-3160-2	569	hsa-mir-4268	795	hsa-mir-621		

Riskscore & Lifetime Map



Kaplan-Meier Survival Curve

Re-hierarchical Clustering Tree

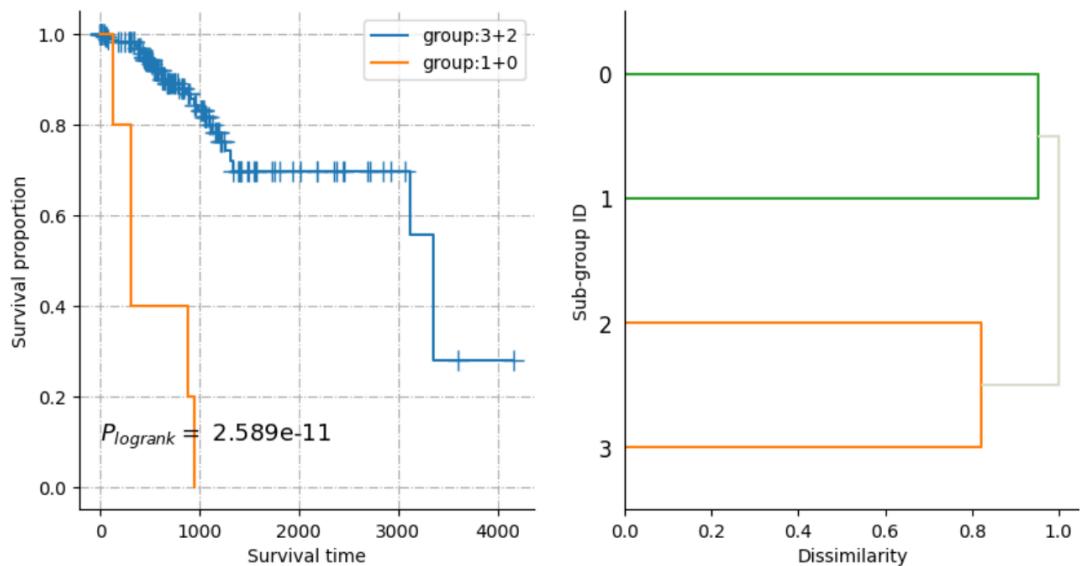
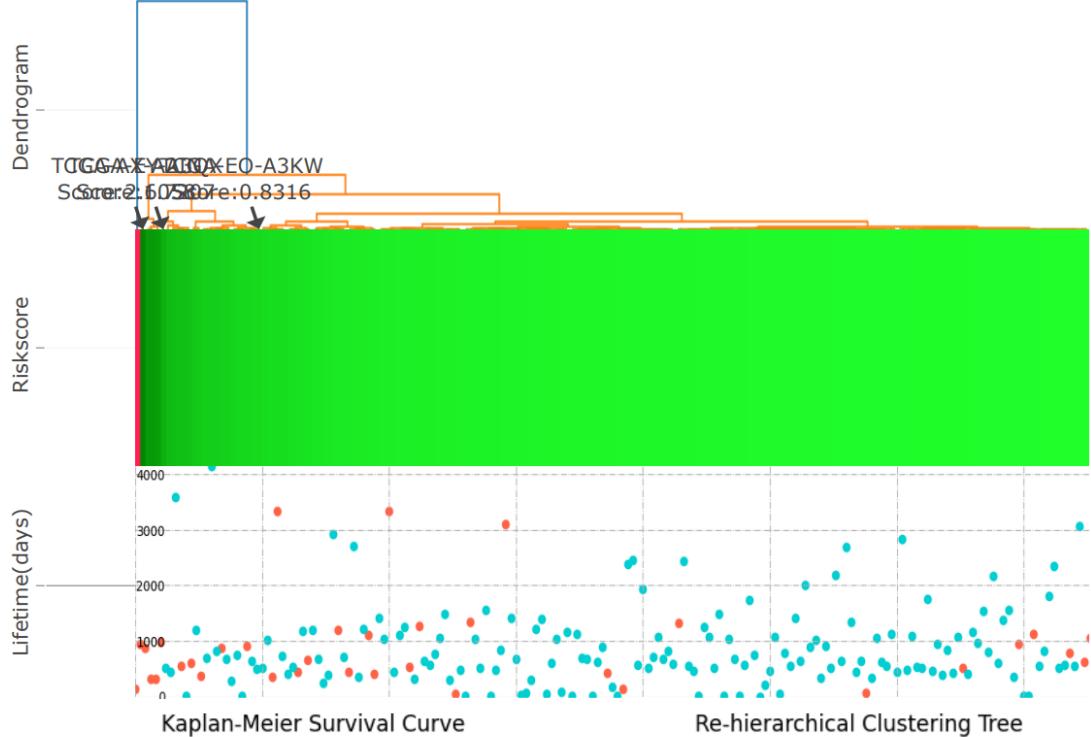


## TCGA-UCEC

mRNA(20014)-10000-5

ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
4647	DCAF12L1	7312	GPR6	8456	INSM1	11949	NPPA	12473	OR5V1

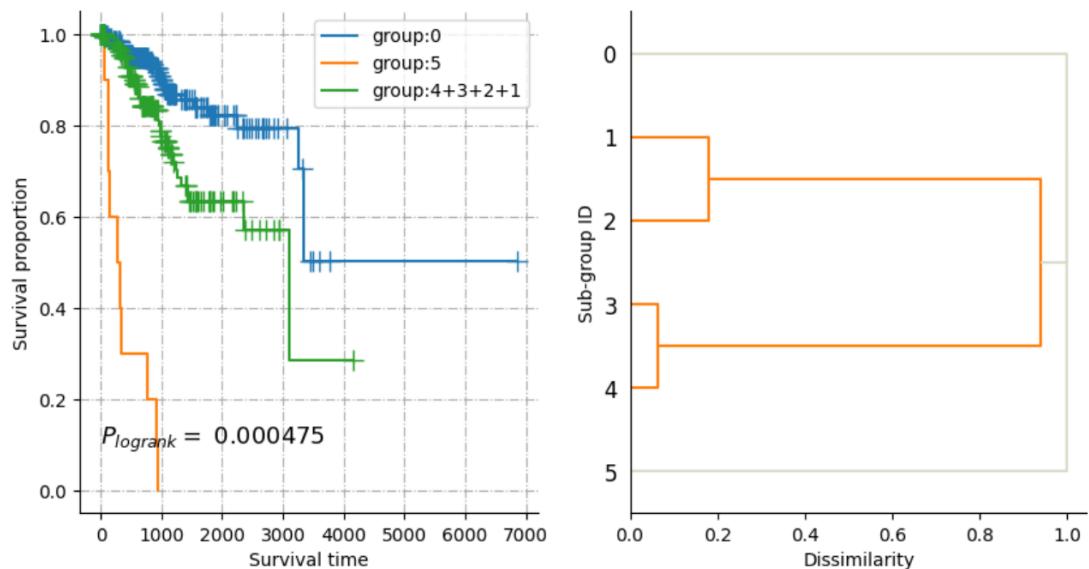
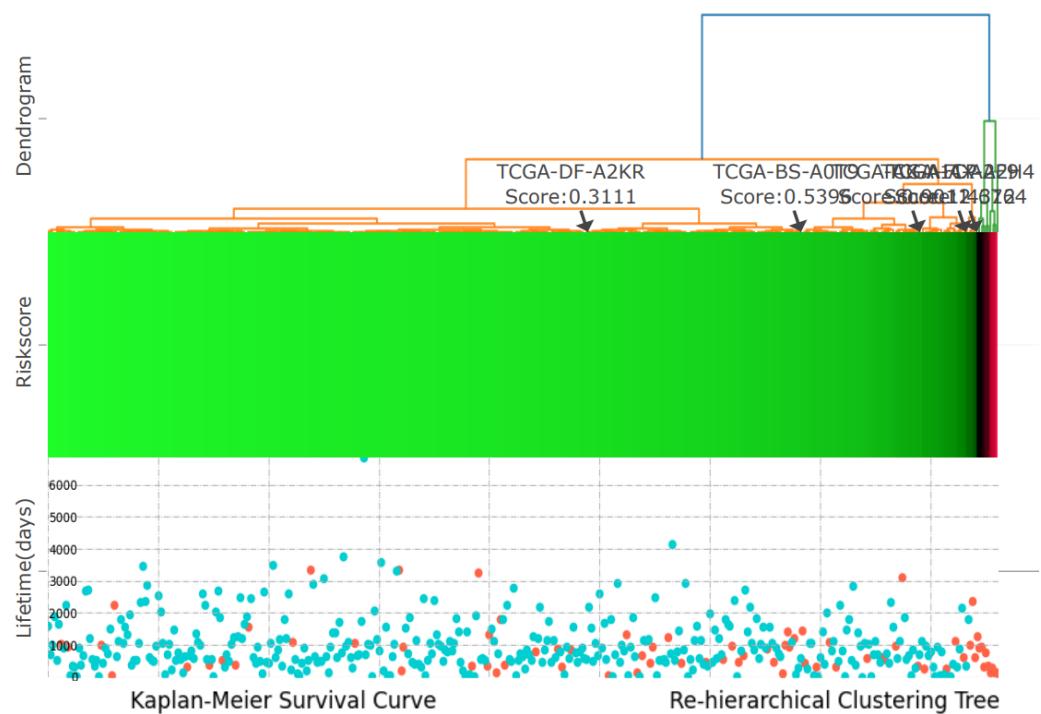
Riskscore & Lifetime Map



## microRNA(910)-10000-1

ID	Name	ID	Name	ID	Name	ID	Name
18	hsa-mir-103-2-as	299	hsa-mir-302a	487	hsa-mir-3676	692	hsa-mir-520h
39	hsa-mir-1203	300	hsa-mir-302b	494	hsa-mir-3683	714	hsa-mir-548b
60	hsa-mir-1243	302	hsa-mir-302d	500	hsa-mir-3689a	777	hsa-mir-592
72	hsa-mir-1253	379	hsa-mir-3180-1	572	hsa-mir-4254	862	hsa-mir-769
114	hsa-mir-1286	422	hsa-mir-330	673	hsa-mir-518a-2		
123	hsa-mir-1292	484	hsa-mir-3672	676	hsa-mir-518d		

Riskscore & Lifetime Map

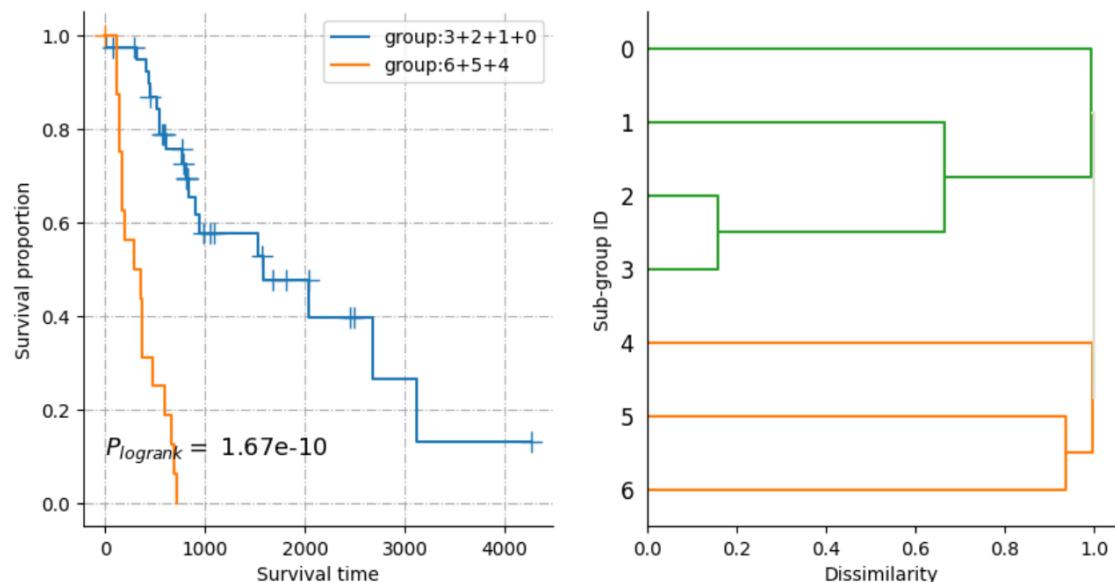
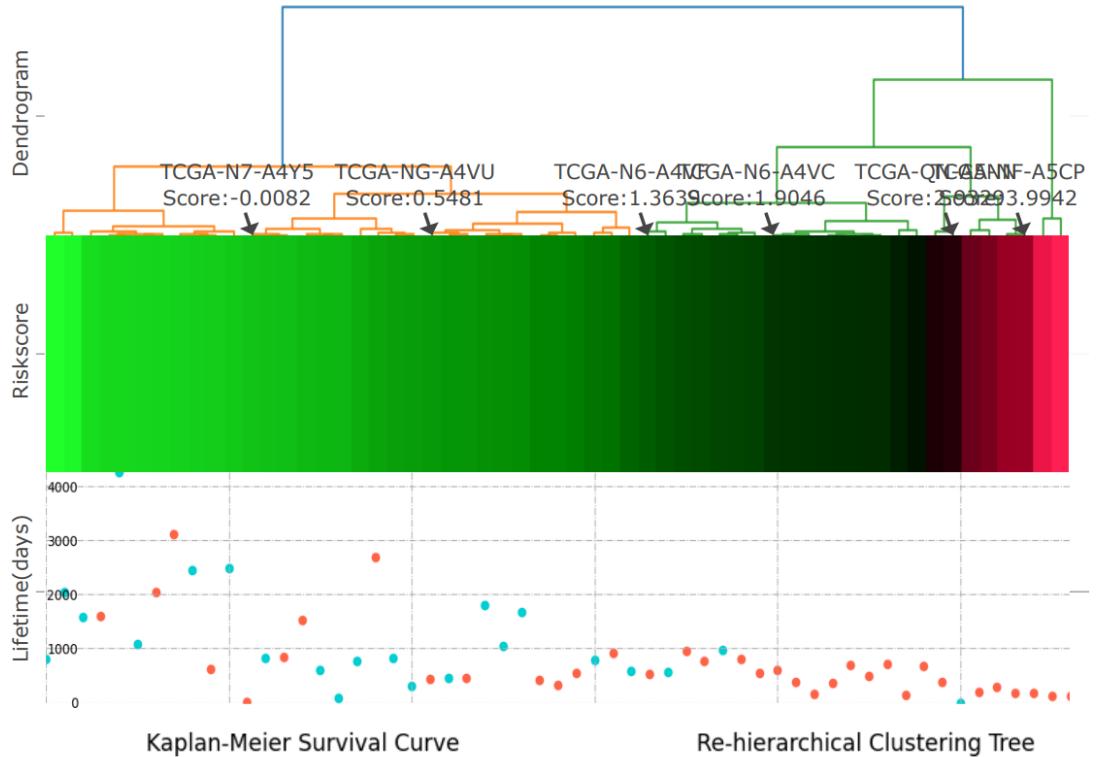


## TCGA-UCS

mRNA(19757)-10000-5

ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
2182	C1orf185	4135	CPLX2	6839	GCNT2	10437	MAPK8IP2	18414	UNC13A
2252	C20orf108	4308	CST1	9684	LOC157627	12610	PCBP2		
2826	CABP7	5491	EML2	9970	LOC728554	17244	THEG		

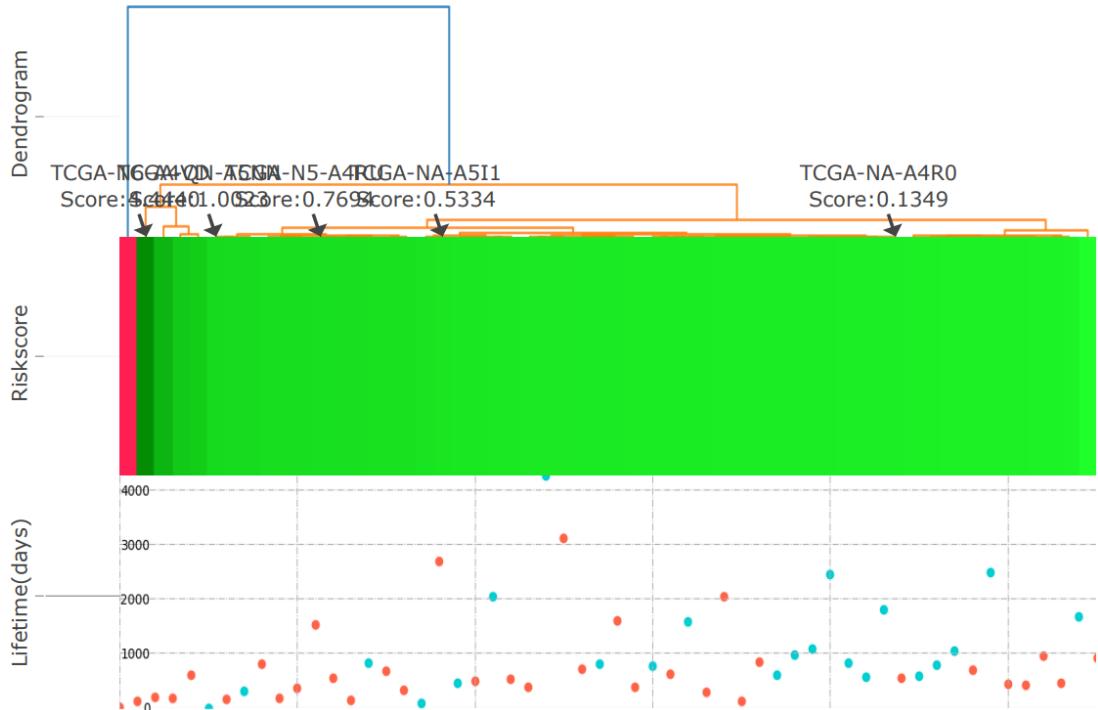
Riskscore & Lifetime Map



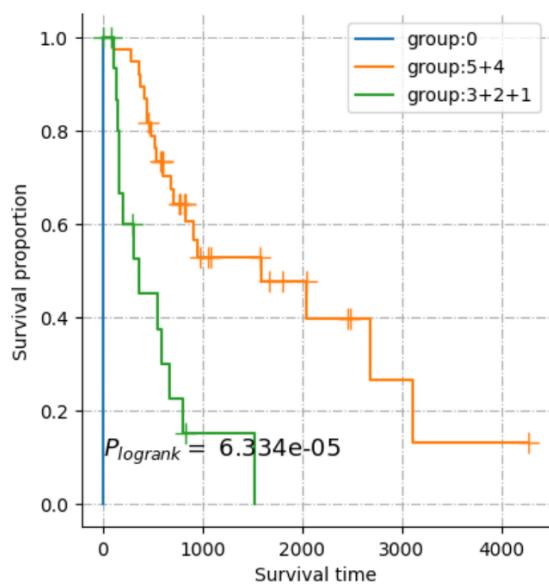
## microRNA(817)-600-50

ID	Name	ID	Name	ID	Name	ID	Name
237	hsa-mir-219-2	388	hsa-mir-330	540	hsa-mir-4310	687	hsa-mir-556
261	hsa-mir-298	493	hsa-mir-3914-2	541	hsa-mir-4315-1	747	hsa-mir-661

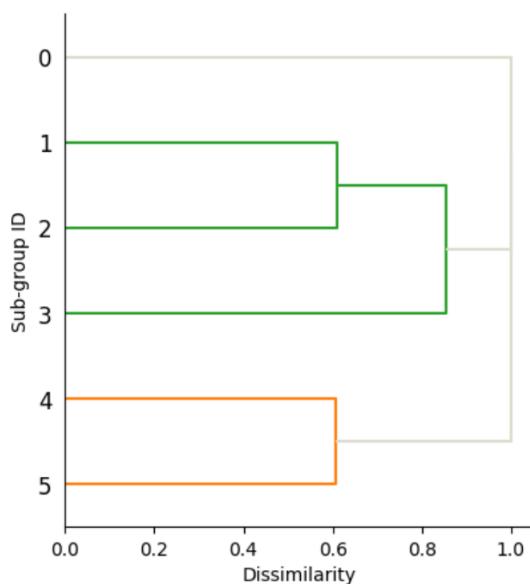
Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



Re-hierarchical Clustering Tree

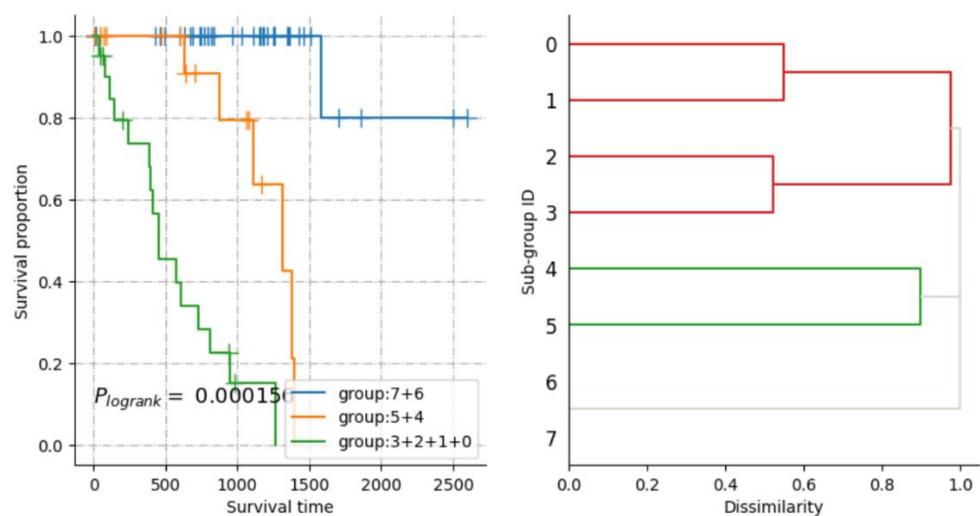
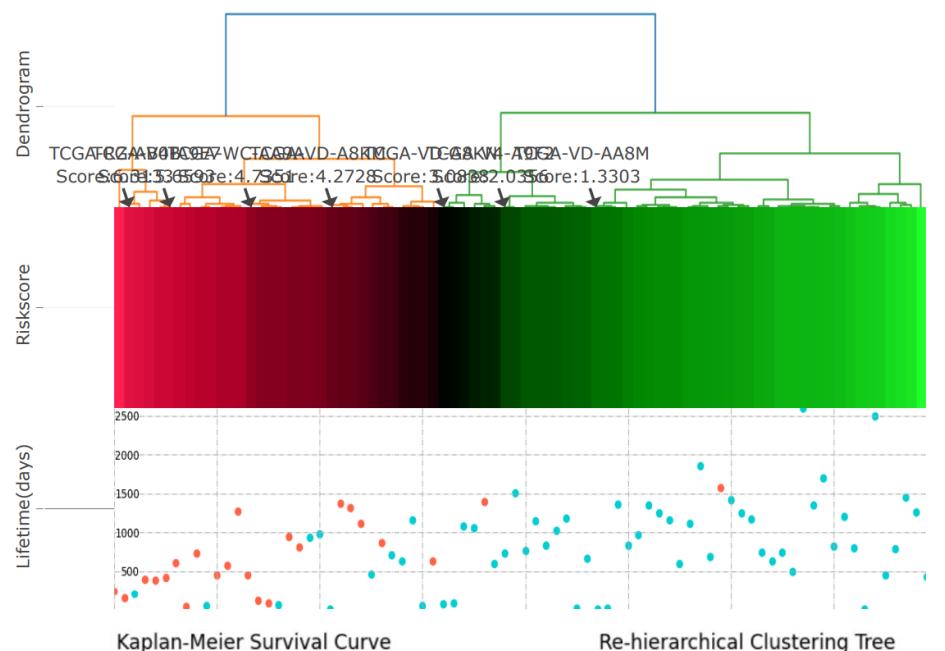


## TCGA-UVM

mRNA(19187)-10000-5

ID	Name	ID	Name	ID	Name	ID	Name	ID	Name	ID	Name
537	ALG5	3982	COPS8	7890	IAH1	9294	LOC100134229	12438	PFKP	17853	ULBP1
1969	C17orf76	4085	CRABP2	7915	IDH2	10383	MGC16025	14521	S100A13	18133	VWC2
1982	C17orf91	5620	FADS1	8391	KATNAL2	10400	MGC57346	14529	S100A6		
2802	CALCOCO	6788	GLA	8530	KDELR3	11186	NDUFA6	14967	SFXN3		
3335	CDH17	6884	GNB5	8996	LARS2	11482	NPAS4	15598	SMYD3		
3448	CELF2	7071	GPR63	9120	LHFP	12092	PAPSS2	15856	SPAG1		
3623	CHRNA5	7456	HEXB	9256	LOC100130932	12126	PARP8	16858	TMCO1		

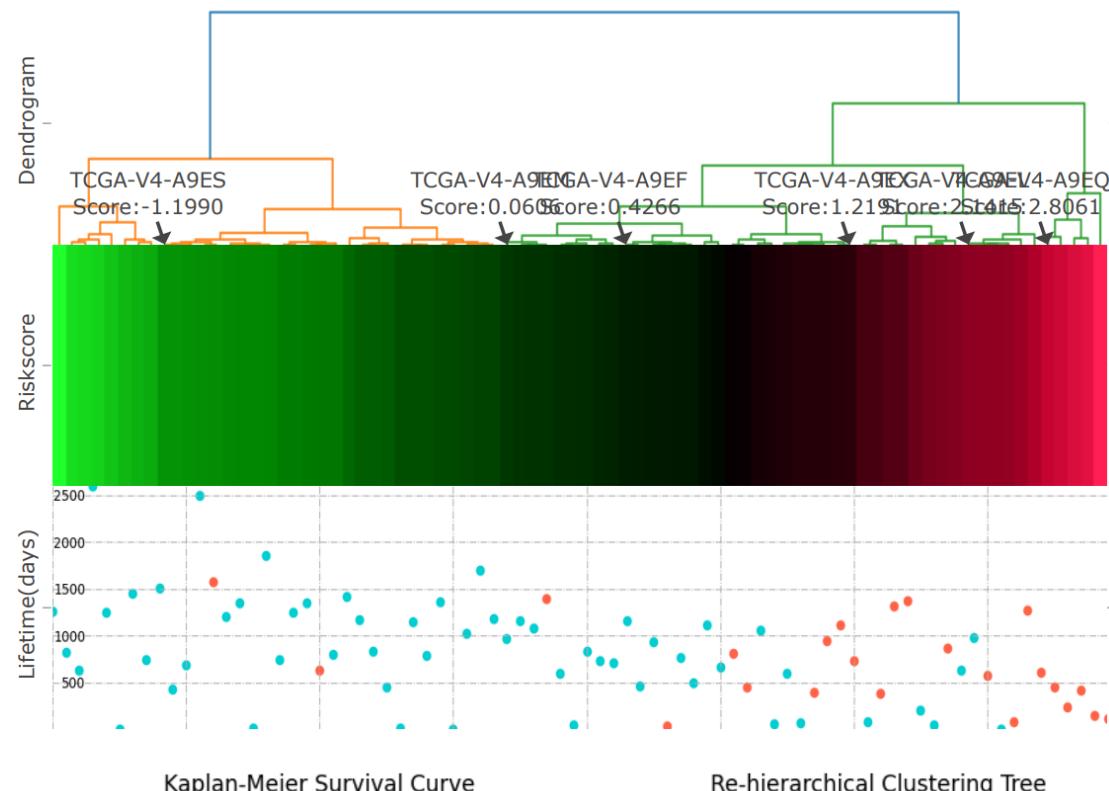
Riskscore & Lifetime Map



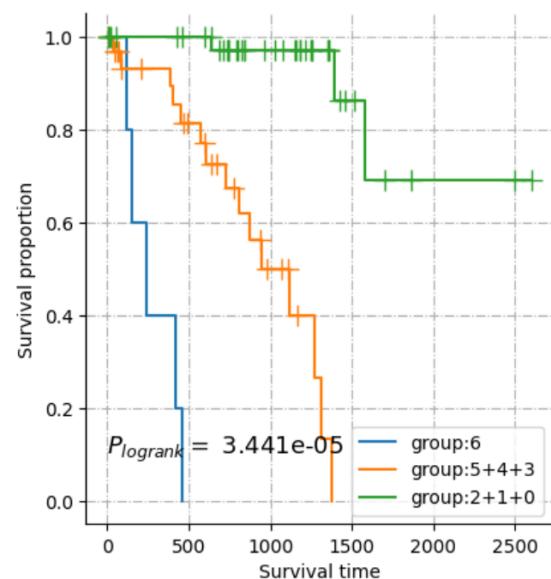
## microRNA(797)-20000-5

ID	Name	ID	Name	ID	Name	ID	Name
3	hsa-let-7b	192	hsa-mir-193b	204	hsa-mir-199b	397	hsa-mir-346
120	hsa-mir-132	195	hsa-mir-195	228	hsa-mir-212	563	hsa-mir-497
163	hsa-mir-181a-1	202	hsa-mir-199a-1	229	hsa-mir-214		
164	hsa-mir-181a-2	203	hsa-mir-199a-2	356	hsa-mir-3190		

Riskscore & Lifetime Map



Kaplan-Meier Survival Curve



Re-hierarchical Clustering Tree

