

Table S1: Summary of each prognostic signature obtained from TCGA-UVM

Gene	R	<i>p</i> -value	Direct
HTR2B	0.8983	1.37E-29	A
CHAC1	0.8635	6.68E-25	A
COL9A3	0.7991	6.45E-19	A
MYEOV	0.7297	1.63E-14	A
ISM1	0.7205	4.93E-14	A
VGF	0.6458	9.92E-11	A
PLN	0.6332	2.92E-10	A
SSX5	0.6315	3.38E-10	A
CYSLTR2	0.5797	1.76E-08	A
OLIG1	0.5435	1.90E-07	A
FOXD1	0.5410	2.21E-07	A
OMG	0.5339	3.39E-07	A
LAG3	0.5203	7.53E-07	A
CA12	0.5197	7.79E-07	A
GBP1	0.5106	1.31E-06	A
MAL2	0.4903	3.89E-06	A
GZMK	0.4867	4.69E-06	A
CXCL9	0.4674	1.23E-05	A
MMP12	0.4401	4.41E-05	A
RIMS2	0.4398	4.47E-05	A
UBD	0.4249	8.55E-05	A
TNFRSF9	0.3910	0.0003	A
DCSTAMP	0.3778	0.0006	A
SIRPG	0.3771	0.0006	A
ULBP1	0.3744	0.0006	A
TIGIT	0.3703	0.0007	A
SH2D1A	0.3639	0.0009	A
IDO1	0.3605	0.0010	A
CD5L	0.3412	0.0020	A
IFNG	0.3253	0.0032	A
KCNQ2	0.3221	0.0036	A
FCRL3	0.3069	0.0056	A
CXCL13	0.3020	0.0065	A
PPP1R14C	0.3003	0.0068	A
ST8SIA2	0.2808	0.0116	A
CRHR1	0.2800	0.0119	A
OLIG2	0.2714	0.0149	A
ZBED2	0.2563	0.0217	A
UNC5D	0.2556	0.0221	A
TRAT1	0.2542	0.0229	A
NEFL	0.2250	0.0448	A
NPY	0.2240	0.0458	A
POU2AF1	0.1913	0.0891	A
TNFRSF17	0.1903	0.0909	A
MZB1	0.1863	0.0981	A
NIPAL4	0.1853	0.0999	A
LRIT1	0.1820	0.1062	A
MS4A1	0.1752	0.1201	A
DDC	0.1709	0.1295	A
FCRL5	0.1583	0.1608	A
CARTPT	0.1474	0.1918	A
RD3	0.1469	0.1935	A
IMPG2	0.1468	0.1937	A
RS1	0.1464	0.1952	A
IMPG1	0.1463	0.1952	A

SST	0.1463	0.1953	A
RBP3	0.1417	0.2100	A
CPLX4	0.1404	0.2143	A
RP1	0.1329	0.2397	A
CABP5	0.1305	0.2485	A
AIPL1	0.1301	0.2502	A
GNGT1	0.1192	0.2923	A
FCRL4	0.1125	0.3204	A
FCRL1	0.1125	0.3204	A
CR2	0.1125	0.3204	A
MYT1L	0.1125	0.3204	A
GABRG1	0.1125	0.3204	A
PPEF2	0.1125	0.3204	A
C5orf58	0.1125	0.3204	A
TMEM244	0.1125	0.3204	A
VWC2	0.1125	0.3204	A
SPINK4	0.1125	0.3204	A
FRMPD2	0.1125	0.3204	A
LRIT2	0.1125	0.3204	A
VAX1	0.1125	0.3204	A
CALCB	0.1125	0.3204	A
SLC17A6	0.1125	0.3204	A
TRIM48	0.1125	0.3204	A
MRGPRD	0.1125	0.3204	A
BARX2	0.1125	0.3204	A
GPR12	0.1125	0.3204	A
HES7	0.1125	0.3204	A
AF165138.7	0.1125	0.3204	A
POU4F2	0.1125	0.3204	A
SV2C	0.1125	0.3204	A
CHRNA3	0.1125	0.3204	A
ANKRD33	0.1125	0.3204	A
UNC13C	0.1125	0.3204	A
GUCY2F	0.1125	0.3204	A
RHO	0.1108	0.3277	A
NEUROD1	0.1107	0.3283	A
PDC	0.1069	0.3451	A
PDE6A	0.1044	0.3570	A
SAG	0.0924	0.4150	A
IGLL5	0.0923	0.4156	A
ELSPBP1	0.0750	0.5082	A
ERVV-2	-0.1016	0.3700	B
PCDHA3	-0.1125	0.3204	B
PCDHA10	-0.1125	0.3204	B
PCDHA11	-0.1125	0.3204	B
PCDHA13	-0.1125	0.3204	B
MAS1	-0.1125	0.3204	B
SPATA31A1	-0.1125	0.3204	B
MT1H	-0.1125	0.3204	B
CRYBA1	-0.1125	0.3204	B
KRT39	-0.1125	0.3204	B
PSG8	-0.1125	0.3204	B
KLK6	-0.1125	0.3204	B
LIM2	-0.1125	0.3204	B
CRYBA4	-0.1125	0.3204	B
ARSH	-0.1125	0.3204	B
GBX1	-0.1254	0.2678	B
FKSG51	-0.1497	0.1850	B

TUBAL3	-0.1529	0.1756	B
AGR3	-0.1554	0.1686	B
CASR	-0.1575	0.1630	B
GCG	-0.1591	0.1586	B
CA6	-0.1593	0.1581	B
RAG2	-0.1600	0.1562	B
ASXL3	-0.1601	0.1560	B
OR1N2	-0.1601	0.1560	B
INS	-0.1601	0.1560	B
TPRXL	-0.1601	0.1560	B
CTAG2	-0.1601	0.1559	B
GPR128	-0.1826	0.1050	B
C2orf54	-0.1865	0.0977	B
PSG9	-0.1878	0.0952	B
SPDYC	-0.1921	0.0878	B
CRYBB2	-0.1964	0.0808	B
SNTG1	-0.1970	0.0798	B
PSG5	-0.2220	0.0478	B
PYY	-0.2283	0.0417	B
HORMAD1	-0.2475	0.0268	B
ZNF208	-0.2571	0.0213	B
ZP4	-0.2575	0.0211	B
TAS1R1	-0.2824	0.0112	B
EPCAM	-0.2969	0.0075	B
TMEM40	-0.3029	0.0063	B
TSPAN8	-0.3035	0.0062	B
NTRK2	-0.3085	0.0054	B
FAM178B	-0.3150	0.0044	B
XAGE2B	-0.3243	0.0033	B
PSG4	-0.3536	0.0013	B
TDRD5	-0.3555	0.0012	B
PCDH20	-0.3610	0.0010	B
CPA2	-0.3634	0.0009	B
HAS2	-0.3648	0.0009	B
SLC3A1	-0.3680	0.0008	B
ERVFRD-1	-0.3818	0.0005	B
ASB10	-0.3959	0.0003	B
PLIN4	-0.3965	0.0003	B
WISP2	-0.4276	7.61E-05	B
TSGA10IP	-0.4299	6.91E-05	B
MYOM1	-0.4364	5.19E-05	B
ATP11AUN	-0.4376	4.92E-05	B
DCT	-0.4424	3.97E-05	B
PON3	-0.4468	3.26E-05	B
MUC7	-0.4512	2.66E-05	B
SOSTDC1	-0.4588	1.86E-05	B
GFRA3	-0.4630	1.53E-05	B
CCDC68	-0.4648	1.40E-05	B
MYO7B	-0.4935	3.29E-06	B
GRIK3	-0.5052	1.76E-06	B
RORC	-0.5122	1.19E-06	B
IRS4	-0.5151	1.02E-06	B
EFCAB1	-0.5179	8.64E-07	B
CHL1	-0.5367	2.86E-07	B
MPPED2	-0.5377	2.69E-07	B
FBP2	-0.5570	8.04E-08	B
CNTN3	-0.5782	1.95E-08	B
PALMD	-0.5951	5.84E-09	B

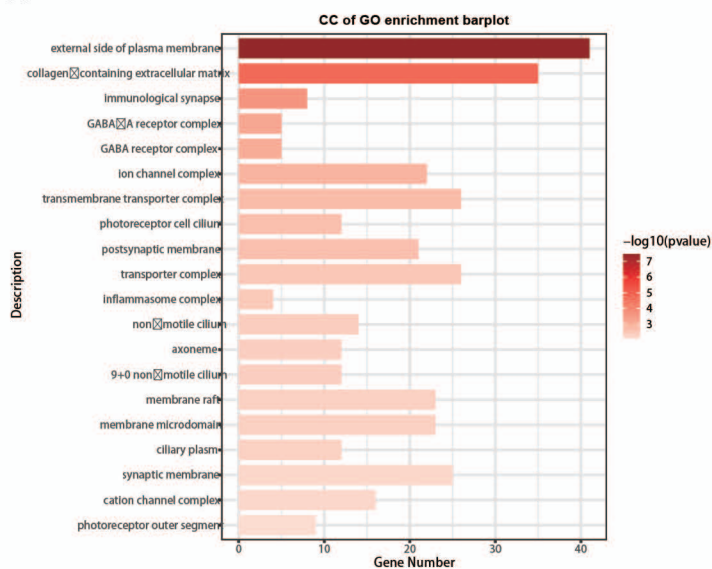
BCHE	-0.5997	4.14E-09	B
LGI4	-0.6009	3.79E-09	B
C4orf19	-0.6027	3.32E-09	B
MEGF10	-0.6299	3.86E-10	B
ROBO1	-0.6306	3.64E-10	B
IRF6	-0.6312	3.45E-10	B
ROPN1	-0.6434	1.23E-10	B
COX6A2	-0.6784	4.73E-12	B
GATA4	-0.7123	1.27E-13	B
KLK13	-0.7186	6.13E-14	B
HPGD	-0.7286	1.85E-14	B
MSC	-0.7289	1.78E-14	B
SSUH2	-0.7381	5.64E-15	B
CLEC11A	-0.7978	8.13E-19	B
RNF43	-0.8149	3.66E-20	B
ZNF835	-0.8852	1.22E-27	B

Table S2: Clinicopathological features of different subtypes in UVM

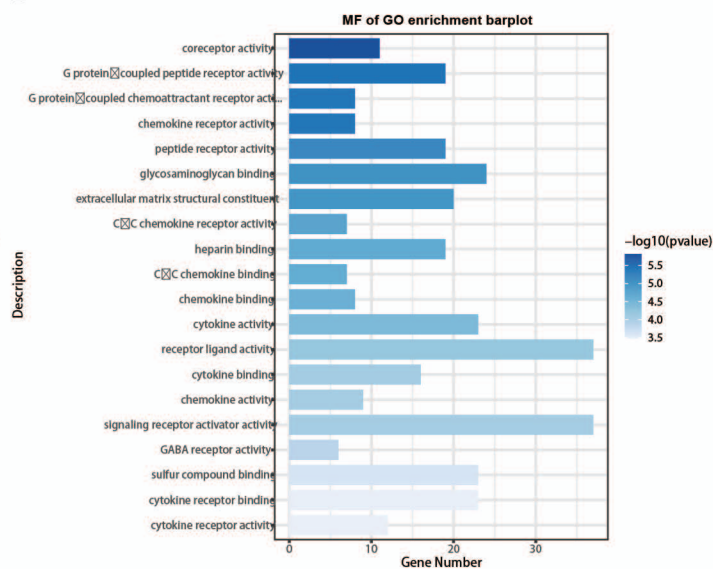
	UMCS1	UMCS2	<i>p</i> -value
	N=39	N=36	
T:			0.181
T2	9 (23.1%)	3 (8.33%)	
T3	16 (41.0%)	15 (41.7%)	
T4	14 (35.9%)	18 (50.0%)	
N: NX	12 (100%)	12 (100%)	.
M:			0.480
M1	0 (0.00%)	2 (15.4%)	
MX	12 (100%)	11 (84.6%)	
stage:			0.096
II	23 (59.0%)	14 (38.9%)	
III	16 (41.0%)	20 (55.6%)	
IV	0 (0.00%)	2 (5.56%)	
sex:			0.874
female	18 (46.2%)	15 (41.7%)	
male	21 (53.8%)	21 (58.3%)	
age	58.2 (14.7)	65.4 (12.9)	0.028
OS:			<0.001
0	37 (94.9%)	19 (52.8%)	
1	2 (5.13%)	17 (47.2%)	
OS.time	976 (573)	670 (492)	0.015
PFI:			<0.001
0	33 (84.6%)	14 (38.9%)	
1	6 (15.4%)	22 (61.1%)	
PFI.time	895 (530)	507 (470)	0.001
DSS:			<0.001
0	38 (97.4%)	20 (55.6%)	
1	1 (2.56%)	16 (44.4%)	
DSS.time	976 (573)	670 (492)	0.015

Figure S1

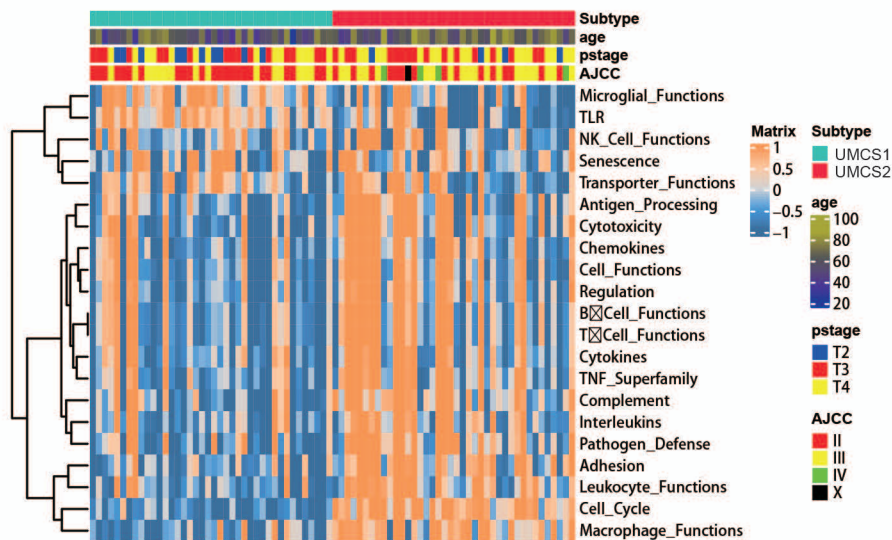
A



B



C



D

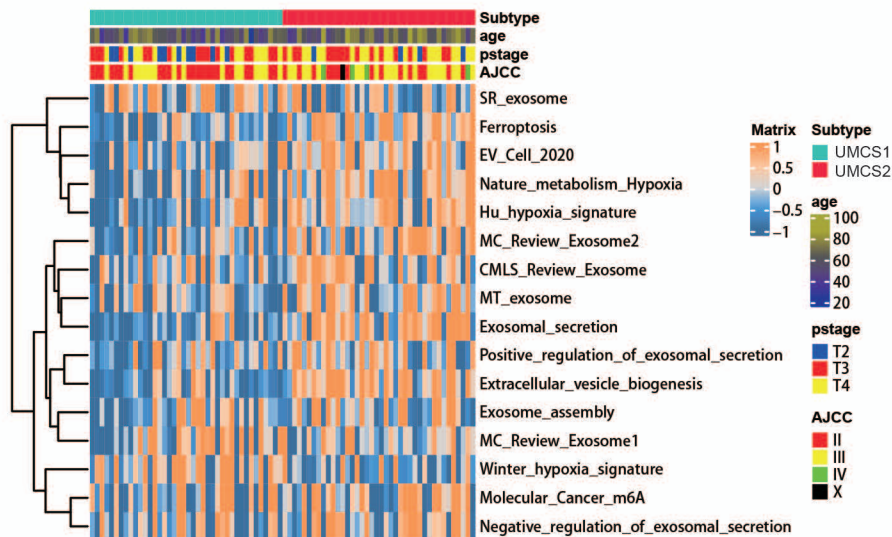
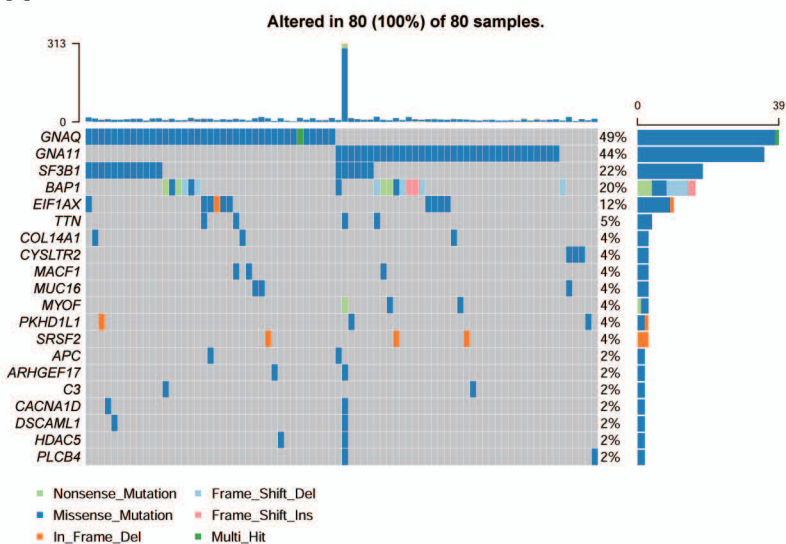
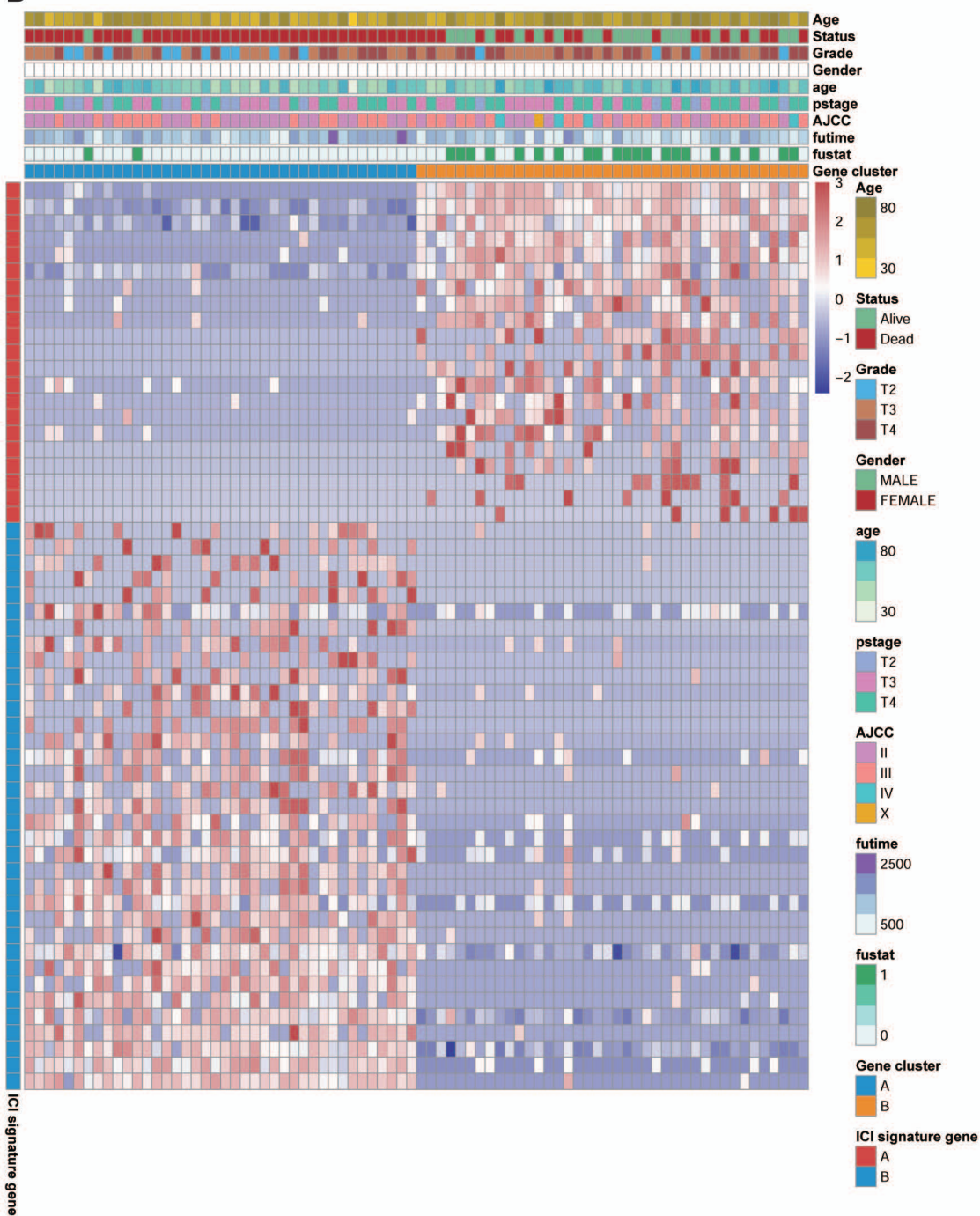


Figure S2

A



B



C

