

TABLE S1. Clinical characteristics of the TCGA OV patients.

Clinical characteristics		N	(%)
Age (years)	≤50	90	24.2
	>50	286	75.8
Race	Asian	11	2.9
	Non-Asian	365	97.1
Histological type	Serous Cystadenocarcinoma	376	100
Subdivision	Left	55	14.6
	Right	46	12.2
	Bilateral	253	67.3
	NA	22	5.9
FIGO stage	I	1	0.3
	II	22	5.8
	III	293	77.9
	IV	57	15.2
	NA	3	0.8
Grade	G1	1	0.3
	G2	42	11.2
	G3	322	85.6
	NA	11	2.9
Lymphatic invasion	Yes	100	26.6
	No	48	12.8
	NA	228	60.6
Venous invasion	Yes	63	16.8
	No	40	10.6
	NA	273	72.6
Residual tumor size	>20 mm	70	18.6
	11-20 mm	26	6.9
	1-10 mm	171	45.5
	No Macroscopic disease	66	17.6
	NA	43	11.4
Primary therapy outcomes	SD+PD	47	12.5
	CR+PR	258	68.6
	NA	71	18.9
Platinum-free interval	Platinum-sensitive	131	34.8
	Partially platinum-sensitive	66	17.5
	Platinum-resistant	75	20
	Platinum-refractory	24	6.4
	NA	80	21.3
New tumor event after initial treatment	Locoregional disease	4	1.1
	Recurrence	200	53.2
	Progression of disease	19	5.1
	NA	153	40.7

Vital status	Dead	230	61.2
	Alive	146	38.8

TABLE S2. CAPG Positivel/ Negatively Correlated Significant Genes.

Target Gene/Attribute	Person Correlation	<i>p</i> value	FDR (BH)
CAPG	1	1.00E-28	1.00E-24
EMP3	0.572388	9.06E-28	9.07E-24
HCST	0.563109	9.56E-27	5.05E-23
LST1	0.56289	1.01E-26	5.05E-23
VAMP8	0.555233	6.67E-26	2.67E-22
TYROBP	0.549155	2.88E-25	9.62E-22
SPI1	0.547563	4.21E-25	1.20E-21
GNGT2	0.54522	7.32E-25	1.83E-21
FCER1G	0.540094	2.42E-24	5.39E-21
TSPO	0.535003	7.78E-24	1.56E-20
GMFG	0.524533	8.08E-23	1.47E-19
GLRX	0.517323	3.87E-22	6.04E-19
AIF1	0.51726	3.92E-22	6.04E-19
APOC1	0.515458	5.76E-22	8.24E-19
RGS19	0.51421	7.51E-22	1.00E-18
ABI3	0.512142	1.16E-21	1.46E-18
IFI30	0.511173	1.43E-21	1.68E-18
RHOG	0.510368	1.69E-21	1.88E-18
VAMP5	0.509799	1.90E-21	2.01E-18
RRAS	0.509156	2.18E-21	2.18E-18
FUT7	0.508859	2.32E-21	2.21E-18
NKG7	0.507251	3.24E-21	2.95E-18
FTL	0.506052	4.15E-21	3.61E-18
TYMP	0.500749	1.23E-20	1.03E-17
CD48	0.499575	1.56E-20	1.25E-17
RAC2	0.498011	2.14E-20	1.65E-17
ANKRD22	0.495837	3.31E-20	2.45E-17
ACAP1	0.493748	5.02E-20	3.59E-17
ARHGDIB	0.493302	5.48E-20	3.79E-17
CCL5	0.491457	7.89E-20	5.27E-17
TNFAIP8L2	0.490628	9.29E-20	6.00E-17
LGALS1	0.488941	1.29E-19	8.09E-17
GZMH	0.488406	1.44E-19	8.71E-17
CST7	0.487916	1.58E-19	9.30E-17
ZNF84	-0.4877	1.65E-19	9.42E-17
CATSPER1	0.486405	2.12E-19	1.18E-16

GNA15	0.485139	2.70E-19	1.45E-16
CD37	0.485046	2.75E-19	1.45E-16
NAGK	0.484066	3.33E-19	1.71E-16
IL2RG	0.482367	4.61E-19	2.31E-16
CLEC4E	0.481501	5.44E-19	2.66E-16
CD3D	0.480488	6.59E-19	3.14E-16
C1QA	0.479443	8.04E-19	3.74E-16
LY96	0.479074	8.62E-19	3.92E-16
BLVRB	0.478325	9.93E-19	4.42E-16
PYCARD	0.477511	1.16E-18	5.01E-16
LY86	0.477425	1.18E-18	5.01E-16
LPXN	0.477003	1.27E-18	5.32E-16
CTSW	0.474726	1.95E-18	7.97E-16
CLEC4A	0.473307	2.54E-18	1.02E-15
SLAMF8	0.472429	2.99E-18	1.17E-15
ZNF660	-0.47169	3.43E-18	1.27E-15
ZNF605	-0.46899	5.63E-18	1.98E-15
ACVR2B	-0.46874	5.90E-18	2.00E-15
DHX9	-0.46114	2.33E-17	6.13E-15
ZNF445	-0.45431	7.76E-17	1.75E-14
RC3H1	-0.45312	9.55E-17	2.10E-14
IKBKAP	-0.45296	9.81E-17	2.14E-14
SETD2	-0.45152	1.26E-16	2.52E-14
RAD54L2	-0.45047	1.51E-16	2.93E-14
PTCH2	-0.44787	2.36E-16	4.42E-14
ZCCHC11	-0.44355	4.90E-16	8.54E-14
TAF1L	-0.44267	5.69E-16	9.83E-14
KIAA1549	-0.44249	5.87E-16	1.00E-13
KLHL15	-0.44107	7.44E-16	1.19E-13
LOC144438	-0.44042	8.29E-16	1.31E-13
ZNF664	-0.43912	1.03E-15	1.54E-13
GXYLT1	-0.43776	1.29E-15	1.84E-13
ZNF192	-0.43385	2.45E-15	3.27E-13
ZNF621	-0.43256	3.02E-15	3.96E-13
RBM6	-0.4306	4.15E-15	5.13E-13
HIPK2	-0.43009	4.50E-15	5.53E-13
ALMS1	-0.42881	5.53E-15	6.59E-13
VPRBP	-0.42808	6.22E-15	7.24E-13
ZSWIM5	-0.42305	1.38E-14	1.50E-12
NAA25	-0.4228	1.44E-14	1.51E-12
TOP2B	-0.42105	1.89E-14	1.95E-12
ZNF10	-0.42102	1.90E-14	1.95E-12
SBNO1	-0.41678	3.67E-14	3.60E-12
IFT81	-0.41655	3.80E-14	3.70E-12

FBXL13	-0.41617	4.03E-14	3.83E-12
IREB2	-0.4162	4.01E-14	3.83E-12
UBN2	-0.41597	4.15E-14	3.89E-12
GTF3C4	-0.41374	5.85E-14	5.09E-12
TET1	-0.4127	6.85E-14	5.82E-12
EP400	-0.41273	6.83E-14	5.82E-12
SETD5	-0.41234	7.24E-14	6.09E-12
OTUD3	-0.41039	9.72E-14	7.79E-12
TAF1	-0.41024	9.94E-14	7.90E-12
LOC286367	-0.40966	1.09E-13	8.50E-12
NKTR	-0.40891	1.21E-13	9.36E-12
ZNF268	-0.40841	1.31E-13	9.94E-12
USP47	-0.40835	1.32E-13	9.95E-12
RBM12	-0.40795	1.40E-13	1.04E-11
RGAG1	-0.40743	1.52E-13	1.13E-11
DNAH10	-0.40719	1.57E-13	1.16E-11
SON	-0.40678	1.67E-13	1.23E-11
TPR	-0.40604	1.87E-13	1.35E-11
MASP2	-0.40578	1.94E-13	1.40E-11
BCOR	-0.40555	2.01E-13	1.44E-11

TABLE S3. The miRNA target and transcription factors networks of CAPG in OC.

Enriched Category	Gene Set	Leading Edge	ES	NES	FDR
		Number			
miRNA target	TGCACTT,MIR-519C,MIR-519B,MIR-519A	119	-0.46943	-1.9088	0
	TGAATGT,MIR-181A,MIR-181B,MIR-181C,MIR-181D	123	-0.49921	-2.0148	0
	AGCACTT,MIR-93,MIR-302A,MIR-302B,MIR-302C,MIR-302D,MIR-372,MIR-373,MIR-520E,MIR-520A,MIR-526B,MIR-520B,MIR-520C,MIR-520D	110	-0.48164	-1.8706	0.000264
Transcription Factor	RYTTCCTG_V\$ETS2_B	312	0.50563	1.9643	0
	V\$PU1_Q6	73	0.53197	1.8329	0.000545

V\$COREBINDINGFACTOR_Q6	62	0.51866	1.8393	0.000636
V\$E2F_02	84	-0.49494	-1.8971	0.001263
V\$IRF_Q6	61	0.50016	1.7809	0.001526
V\$NFKAPPAB65_01	60	0.49793	1.7613	0.00156
GCCATNTTG_V\$YY1_Q6	144	-0.48925	-1.9409	0.001684
V\$E2F_Q3_01	69	-0.462	-1.7501	0.00259
V\$AP1_Q6	68	0.45965	1.6179	0.005846

Abbreviations: ES, Enrichment Score; NES, Normalized Enrichment Score; FDR, false discovery rate.