

SUPPLEMENTARY TABLES

Supplementary Table 1. Viral copy numbers in all ovarian tumors, fallopian tubes, and blood samples from EOC cases, including HGSOC and non-HGSOC cases, and from control patients.

Virus		Virus copy number per 10 ⁵ cells in patient groups											
		EOC (HGSOC & non-HGSOC)			HGSOC			Non-HGSOC			Control		
		Tumor	FT	Blood	Tumor	FT	Blood	Tumor	FT	Blood	Tumor	FT	Blood
HPV16	Mean	28.7	47.4	106.9	23.6 ^a	29.2 ^{b,c}	142.1	44.4	90.2 ^d	9.8	16.5	0	9.5
	SD	86.2	170.3	835.5	79.9	119.5	974.4	103.7	251.9	34.3	57.1	0	32.2
	Range	0-554.7	0-946.4	0-8063.3	0-554.7	0-653.8	0-8063.3	0-393.1	0-946.4	0-163.7	0-263.3	0	0-146.5
HPV18	Mean	6.3	6.6	6.8	7.7	8.3	5.9	2.3	2.6	9.4	8.0	20.7	13.0
	SD	48.9	38.5	32.0	56.9	45.7	31.4	9.6	8.0	34.0	44.2	70.0	38.3
	Range	0-477.9	0-303.7	0-241.7	0-477.9	0-303.7	0-241.7	0-48.5	0-26.3	0-152.3	0-264.7	0-310.7	0-161.9
CMV	Mean	14.5	36.8	6.3	18.3	13.0	6.1	10.2	91.5	6.6	11.5	11.5	4.7
	SD	65.1	220.8	24.7	74.9	47.7	25.2	36.3	396.1	23.6	35.1	27.4	16.3
	Range	0-466	0-1773	0-185.4	0-466.0	0-311.0	0-185.4	0-183.4	0-1773.5	0-104.5	0-186.0	0-102.4	0-71.1
EBV	Mean	4.7	6.9	30	5.4	7.4	2.5	2.7	5.5	4.4	1.1	0.6	3.9
	SD	16.6	24.5	15.5	18.6	27.0	15.7	7.5	17.8	15.2	3.6	3.0	15.1
	Range	0-107	0-167.9	0-123.1	0-107.0	0-167.9	0-123.1	0-28.3	0-73.0	0-60.5	0-17.4	0-14.3	0-70.0

HGSOC high-grade serous ovarian carcinoma, *non-HGSOC* ovarian cancer types excluding HGSOC, *FT* fallopian tube, *p* Mann-Whitney U test,

^a*p*=0.0006 (HPV16 vs. HPV18), ^b*p*=0.026 (HGSOC vs. control), ^c*p*=0.02 (HPV16 vs. HPV18), ^d*p*=0.048 (non-HGSOC vs. control).

Supplementary Table 2. Viral copy numbers in all ovarian tumors, fallopian tubes, and blood samples from patients with ovarian metastasis, BOT, and control patients.

Virus		Virus copy number per 10 ⁵ cells in patient groups								
		Metastasis			BOT			Control		
		Tumor	FT	Blood	Tumor	FT	Blood	Tumor	FT	Blood
HPV16	Mean	32.6	88.7 ^a	44.8 ^b	16.2	25.7	2.8	16.5	0	9.5
	SD	101.9	236.4	85.5	39.0	55.9	5.9	57.1	0	32.2
	Range	0-396.7	0-795.9	0-275.9	0-116.9	0-150.0	0-16.8	0-263.3	0	0-146.5
HPV18	Mean	35.1	12.6	7.9	0.00	0	2.7	8.0	20.7	13.0
	SD	115.0	43.5	21.1	0	0	8.2	44.2	70.0	38.3
	Range	0-443.8	0-150.7	0-65.8	0-0.00	0	0-24.6	0-264.7	0-310.7	0-161.9
CMV	Mean	9.2	12.9	36.0	3.1	3.1	12.5	11.5	11.5	4.7
	SD	21.3	34.3	117.7	7.3	8.1	25.2	35.1	27.4	16.3
	Range	0-74.1	0-113.0	0-457.1	0-21.9	0-21.5	0-65.7	0-186.0	0-102.4	0-71.1
EBV	Mean	1.1	0	1.7	0.0	0.0	9.1	1.1	0.6	3.9
	SD	2.6	0	5.8	0	0	25.7	3.6	3.0	15.1
	Range	0-7.8	0	0-20	0.0	0.0	0-72.7	0-17.4	0-14.3	0-70.0

BOT borderline ovarian tumor, *FT* fallopian tube, *p* Mann-Whitney U test, HGSOC ^a*p*=0.003 (metastasis vs. control), ^b*p*=0.0087 (metastasis vs. control).

Supplementary Table 3. ddPCR assay primers and probes.

Organism	Target gene	Sequence (5'-3')	Amplicon size (bp)	References
HPV16	<i>E6</i>	CAATGTTTCAGGACCCACAG	110	(36)
		CTGTTGCTTGCAGTACACACATTC		
		6-FAM CCACAGTTATGCACAGAGCTGC BHQ-1		
HPV18	<i>E7</i>	AGGAAGAAAACGATGAAATAGATGGAGTT	107	(37)
		GGCTTCACACTTACAACACATACAC		
		6-FAM ACCAGCCCCGACGAGCCGA BHQ-1		
EBV	<i>BamH1W</i>	GCAGCCGCCAGTCTCT	83	(38)
		ACAGACAGTGCACAGGAGCCT		
		6-FAM AAAAGCTGGCGCCCTTGCCTG BHQ-1		
CMV	<i>UL55</i>	GAGGACAACGAAATCCTGTTGGGCA	150	(39)
		GTCGACGGTGGAGATACTGCTGAGG		
		6-FAM CAATCATGCGTTTGAAGAGGTA		
		GTCCA BHQ-1		
Human	<i>RPP30</i>	GATTTGGACCTGCGAGCG	62	(50)
		GCGGCTGTCTCCACAAGT		
		HEX TCTGACCTGAAGGCTCTGCGCG BHQ-1		

bp base pairs, *6-FAM* 6-fluorescein amidite, *BHQ-1* black hole quencher-1, *HEX* hexachlorofluorescein, *RPP30* ribonuclease P protein subunit p30.