

Supplementary material

Supplementary Table 1A
Summary of patient characteristics for the initial study

Sample ID	Stage	Histology	Grade	Age at diagnosis	Blood sample interval ^{1,2} (months)	Disease status at time of blood draw ³	CA125 at time of blood draw (Normal \leq 35)	Chemo status at time of blood draw	Time since diagnosis (months)
<i>Patient 0067 No Recur</i>									
36	3C	Serous	Grade 3 (high)	57	5	Stable Disease	12	post chemo	5.4
784					30	NED	12	post chemo	29.9
3812					45	NED	9	post chemo	44.8
<i>Patient 1525 No Recur</i>									
1005	3C	Serous	Grade 3 (high)	55	3	Not Specified	3308	in chemo	3.4
4012					16	NED	6	post chemo	16.2
4715					30	NED	6	post chemo	30.2
<i>Patient 1905 No Recur</i>									
1826	3C	Serous	Grade 3 (high)	48	1	EOD	17	in chemo	1.1
4069					10	NED	7	post chemo	10.2
4588					22	NED	15	post chemo	21.6
<i>Patient 1418 No Recur</i>									
832	3C	Serous	Grade 3 (high)	56	11	NED	24	post chemo	10.6
3802					24	NED	28	post chemo	23.7
4222					35	NED	26	post chemo	35.1
<i>Patient 3048 No Recur</i>									
4629	3C	Serous	Grade 3 (high)	54	0	EOD	3852	pre chemo	0.0
7428					11	Tol treatment	6	in chemo	10.9
12350					23	NED	5	post chemo	23.0
<i>Patient 1115 Time To Recurrence: 8.9 months</i>									
674	3C	Serous	Grade 3 (high)	76	-8.7	EOD	185	pre chemo	0.3
940					1.1	NED	13	post chemo	10.1
3909					12.3	EOD	71	recur pre chemo	21.3
<i>Patient 1295 Time To Recurrence: 29.2 months</i>									
747	3B	Serous	Grade 3 (high)	42	-28.4	EOD	36	pre chemo	0.7
1740					-16.3	Not Specified	11	post chemo	12.9
4258					0.0	EOD	18	recur pre chemo	29.2
<i>Patient 1379 Time To Recurrence: 18.9 months</i>									
760	4	Serous	Grade 3 (high)	51	-18.9	EOD	810	pre chemo	0.0
1681					-8.2	Not Specified	25	in chemo	10.7
3846					-2.6	Not Specified	77	post chemo	16.3
<i>Patient 1511 Time To Recurrence: 24.4 months</i>									
978	3C	Serous	Grade 1 (low)	41	-24.4	EOD	85	pre chemo	0.0
3905					-14.3	NED	5	post chemo	10.1
4531					0.2	EOD	23	recur pre chemo	24.6
<i>Patient 1444 Time To Recurrence: 19.8 months</i>									
3776	3C	Serous	Grade 3 (high)	52	-9.5	NED	6	post chemo	10.3
4213					1.7	EOD	18	recur pre chemo	21.5
4968					14.0	EOD	366	recur pre chemo	33.8

¹No Recurrence Blood Sample Interval = Months between blood draw and diagnosis.²Recurrence Blood Sample Interval = Months between blood draw and recurrence.³EOD = Evidence of Disease, NED = No Evidence of Disease, Tol treatment = tolerating treatment.

Supplementary Table 1B
Summary of patient characteristics for the validation study

Sample ID	Stage	Histology	Grade	Age at diagnosis	Blood sample interval ^{4,5} (months)	Disease status at time of blood draw ⁶	CA125 at time of blood draw (Normal ≤ 35)	Chemo status at time of blood draw	Time to recurrence (months)
238	3C	Serous	Grade 2 (intermediate)	47	20	NED	13	post chemo N/A ⁷	
3713	3C	Serous	Grade 1 (low)	48	51	NED	9	post chemo	N/A
4345	4	Serous	Grade 3 (high)	79	25	NED	13	post chemo	N/A
4670	3C	Serous	Grade 2 (intermediate)	48	57	NED	7	post chemo	N/A
12332	3C	Serous	Grade 3 (high)	55	30	NED	8	post chemo	N/A
57	3C	Serous	Grade 2 (intermediate)	65	-3.0	NED	15	post chemo	17.5
58	3C	Serous	Grade 3 (high)	71	-2.1	Not Specified	67	post chemo	26.8
279	3C	Serous	Grade 3 (high)	51	-3.5	NED	10	post chemo	11
346	3	Serous	Grade 1 (low)	73	-3.6	NED	23	post chemo	14
350	3C	Serous	Grade 3 (high)	65	-15.4	NED	19	in chemo	20.1
356	3C	Serous	Not Specified	50	-10.8	Not Specified	31	in chemo	16.2
358	3C	Serous	Not Specified	78	-8.7	NED	14	post chemo	22.9
725	3C	Serous	Grade 3 (high)	69	-7.3	nd	17 *CA125 obtained 5 months prior	post chemo	18.2
778	3C	Serous	Grade 1 (low)	41	-10.6	NED	22	post chemo	27.3
807	3C	Serous	Grade 3 (high)	58	-10.9	NED	20	post chemo	19.1
876	3C	Serous	Grade 3 (high)	47	-10.03	NED	16	in chemo	15.5
1006	3C	Serous	Grade 1 (low)	46	-6.5	NED	4	post chemo	14.2
1020	4	Serous	Grade 2 (intermediate)	56	-5.4	NED	9	post chemo	15
1385	3C	Serous	Not Specified	62	-13.6	Not Specified	30	in chemo	16
3928	3C	Serous	Grade 3 (high)	47	-10.4	NED	8	post chemo	26.4
3930	3C	Serous	Grade 3 (high)	63	-6.1	NED	6 *CA125 obtained 3 months prior	post chemo	25.7
4066	3A	Serous	Grade 3 (high)	56	-18.9	NED	7	post chemo	31.7
4197	3C	Serous	Not Specified	63	-10.2	NED	24	post chemo	39
4221	3C	Serous	Grade 3 (high)	58	-6.2	NED	13	post chemo	25.7
4487	4C	Serous	Grade 3 (high)	67	-3.0	NED	34	post chemo	12.9
7323	3C	Serous	Grade 3 (high)	62	-7.8	NED	18	post chemo	18.1
11243	3C	Serous	Grade 2 (intermediate)	49	-12.8	NED	13	in chemo	18.3
11331	3C	Serous	Grade 3 (high)	62	-11.0	NED	7	post chemo	36.2
12362	3C	Serous	Grade 3 (high)	63	-9.07	NED	39	post chemo	14.1
12387	3C	Serous	Grade 3 (high)	67	-5.53	NED	5	in chemo	12.1

⁴No Recurrence Blood Sample Interval = Months between blood draw and diagnosis.

⁵Recurrence Blood Sample Interval = Months between blood draw and recurrence.

⁶EOD = Evidence of Disease, NED = No Evidence of Disease, Tol treatment = tolerating treatment.

⁷No clinical evidence of disease for > 48 months.

Supplementary Table S2
Summary of statistical analyses for the initial study for selecting significant antigens

Assays performed	Study population	Analyses		Statistically significant Ags
		T-test	Wilcoxon rank sum (Mann-Whitney) test	
10 (at the first post diagnosis interval)	R vs NR R (n = 5); NR (n = 5)	17 Ags, (p < 0.05)	15 Ags, (p < 0.05)	4/17 Ags, 02Mec1_BP4_P3_A11, Mec1_1A3, Mec1_4B5, and Mec1_5C7 showed complete discrimination between R and NR groups
	CA125 < 35 U/ml at 1 yr	Overlapping Ags between 2 analyses	= 17	
8*(at the first post diagnosis interval)	R vs NR R (n = 5); NR (n = 3)	11 Ags, (p < 0.05)	4 Ags, (p < 0.05)	4/13 Ags, Mec1_1E1, Mec1_4B5, Mec1_5A7 and Mec1_5C7 completely discriminated 5R from 3 NR groups. MEC1_5C7 is the best discriminator.
		Overlapping Ags between 2 analyses	= 13	
9*(at the second post diagnosis interval)	R vs NR R (n = 5); NR (n = 4)	10 Ags, (p < 0.05)	9 Ags, (p < 0.05)	2/11 Ags, Mec1_5C12 and P156_BP4_P2_H3 completely discriminated 5 R from 4 NR.
		Overlapping Ags between 2 analyses	= 11	

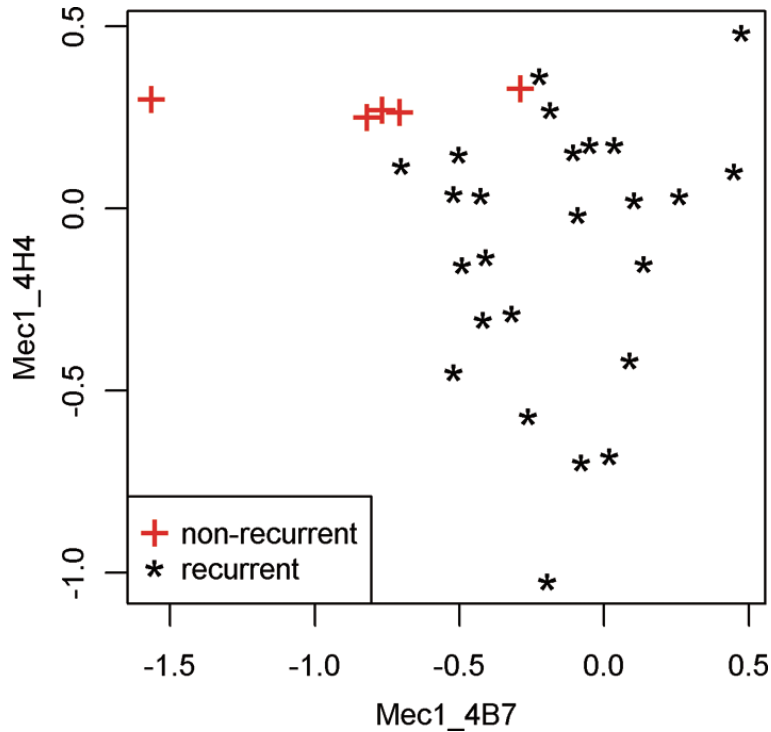
NOTE: R = Recurrent ovarian cancer.

NR = Non-recurrent ovarian cancer.

Ags = Antigens.

* = Number of assays was < 10 because 1 NR patient had no baseline value and the other NR patient had no first post diagnosis interval value.

Please see Materials and Methods for the different Statistical analyses.



Supplementary Fig. S1. Graphical representation of ovarian cancer validation set by recurrence status. Recurrence status of the validation set is based on correlation between 2 antigens, Mec1_4B7 and Mec1_4H4.