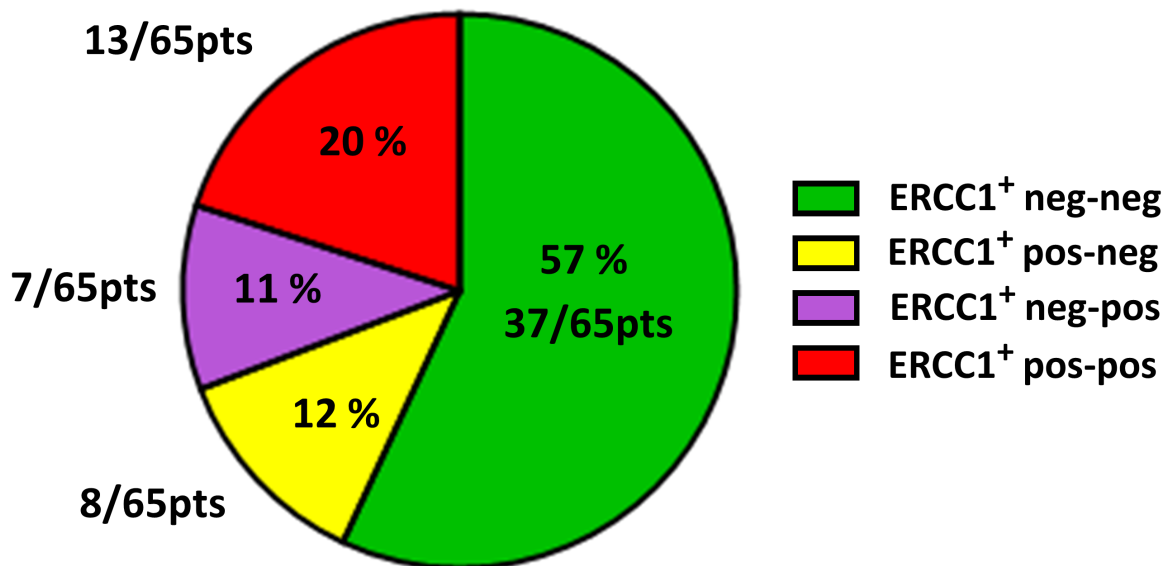
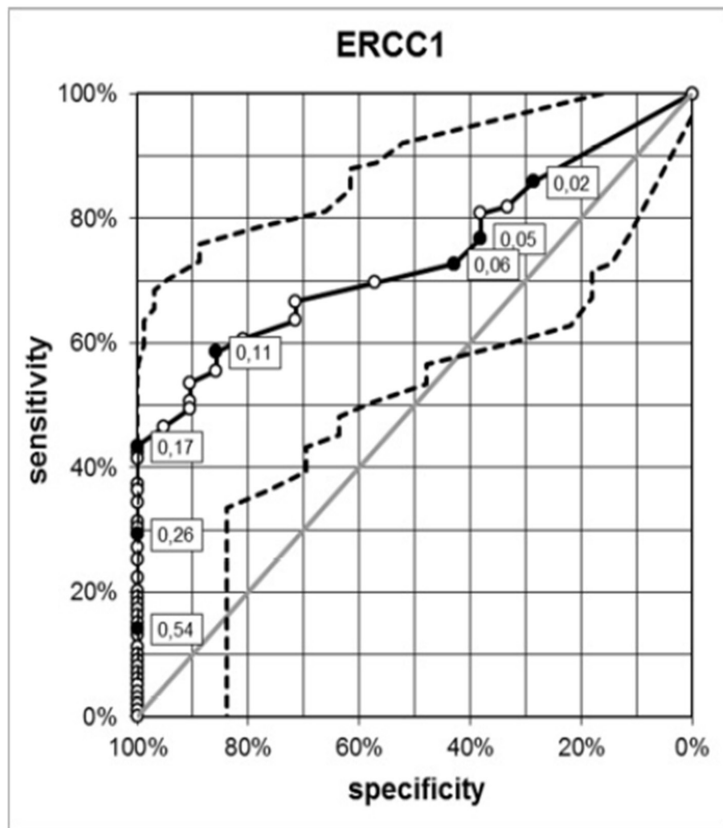


ERCC1-expressing circulating tumor cells as a potential diagnostic tool for monitoring response to platinum-based chemotherapy and for predicting post-therapeutic outcome of ovarian cancer

SUPPLEMENTARY FIGURES AND TABLE



Supplementary Figure S1: Dynamics of ERCC1-positivity in the course of platinum-based chemotherapy. This analysis refers to the prognostic relevance of ERCC1-transcripts alone, irrespectively of the Adnatest transcript markers EpCAM, MUC-1 or CA-125. The pie chart shows a stratification of the study cohort (n=65) into different subgroups, according to the dynamics of ERCC1-positivity (ERCC1⁺) before surgery and after chemotherapy. Beside the group of patients, who were negative for ERCC1 throughout treatment (ERCC1⁺ neg-neg), we observed patients, who became negative after chemotherapy (ERCC1⁺ pos-neg), patients with newly acquires positivity after chemotherapy (ERCC1⁺ neg-pos) or persistently positive patients (ERCC1⁺ pos-pos). Percentages and absolute patient numbers are indicated.



N (normal)	N (abnormal)
21	99
ROC CURVE P1	
AUC	0,7367
SE	0,0528
low. CI (0,95)	0,6483
upp. CI (0,95)	0,8130
SPEC	SENS
95%	46,5%
90%	53,5%
80%	60,6%
SENS	SPEC
95%	0,0%
90%	0,0%
80%	38,1%

Supplementary Figure S2: ROC analysis for the determination of ERCC1 sensitivity and specificity. Blood samples of 20 healthy donors and 99 patients with primary ovarian cancer were analyzed for CTCs with the AdnaTest *OvarianCancer* and for ERCC1 expression applying densitometric fragment quantification using the Agilent Bioanalyzer 2100. The resulting data were checked for sensitivity and specificity. A cut off value was determined using a ROC analysis. At a cut-off value of 0.17 ng/μl 95% specificity was reached and the corresponding clinical sensitivity was 46.5%. A slightly higher cut-off at 0.2 ng/μl was, however, chosen as kind of a security measure.

Supplementary Table S1: Univariate analysis of different CTC-subgroups and patient numbers at risk

	at risk (%)					p-value (log rank)
	0	25	50	75	100	
1. PFS						
ERCC-1 after chemotherapy						0.0158
no	45	25	12	4	2	
yes	20	7	3	3	0	
ERCC-1						
pos-pos	13	3	1	1	0	0.0021
neg-neg or pos-neg or neg-pos	52	29	14	6	2	
ERCC-1+CTCs after chemotherapy						0.0293
no	57	30	14	6	2	
yes	8	2	1	1	0	
ERCC-1+CTCs						
pos-pos	3	0	0	0	0	0.0053
neg-neg or pos-neg or neg-pos	62	32	15	7	2	
ERCC-1+CTCs						
neg-pos	5	2	1	1	0	0.2871
neg-neg or pos-neg	57	30	14	6	2	
	at risk (%)					p-value(log rank)
	0	25	50	75	100	
2. OS						
ERCC-1 after chemotherapy						0.0377
no	45	31	17	8	5	
yes	20	16	5	5	1	
ERCC-1						
pos-pos	13	10	3	3	1	0.0327
neg-neg or pos-neg or neg-pos	52	37	19	10	5	
ERCC-1+CTCs after chemotherapy						0.0008
no	57	41	21	12	6	
yes	8	6	1	1	0	
ERCC-1+CTCs						
pos-pos	3	2	0	0	0	0.0058
neg-neg or pos-neg or neg-pos	62	45	22	13	6	
ERCC-1+CTCs						
neg-pos	5	4	1	1	0	0.0202
neg-neg or pos-neg	57	41	21	12	6	

The table summarizes univariate analysis according to the Kaplan-Meier curves (Figure 2, 4, 5). The absolute number of patients in each subgroup at a risk of 0%, 25%, 50%, 75% and 100% is indicated for each case.