

Supplementary Table S1: Characteristics of patients

Colorectal cancer set I

Characteristics	N	%
<i>Age at diagnosis, mean±S.D. (years)</i>	63.5 ± 9.1	
<i>Gender</i>		
Male	35	69
Female	16	31
<i>Primary tumor size</i>		
pT2	3	6
pT3	39	76
pT4	9	18
<i>Regional lymph node metastasis</i>		
Absent (pN0)	14	27
Present (pN1-N2)	37	73
<i>Distant metastasis</i>		
cM0	25	49
cM1	26	51
<i>Pathological stage</i>		
II	7	14
III	18	35
IV	26	51
<i>Histological grade</i>		
G1	6	12
G2	39	76
G3	6	12
<i>Primary tumor localization</i>		
Colon	25	49
Rectosigmoideum	12	24
Rectum	14	27
<i>Chemotherapy</i>		
5-FU ± leucovorin	18	35
FOLFOX	33	65
<i>Grade 3 or 4 toxicity</i>	4	8
<i>Postoperative radiotherapy</i>	7	14
<i>Chemotherapy outcome</i>		
Responders/nonresponders to palliative treatment	13/13	-
Relapse/remission after adjuvant treatment	7/18	-

Colorectal cancer set II

Characteristics	N	%
<i>Age at diagnosis, mean±S.D. (years)</i>	70.6 ± 9.4	
<i>Gender</i>		
Male	40	67
Female	20	33
<i>Primary tumor size</i>		
pT3	56	93
pT4	4	7
<i>Histological grade</i>		
G1	8	13
G2	43	77
G3	6	10
...Not assessed	3	-
<i>Primary tumor localization</i>		
Colon	43	72
Rectosigmoideum	5	8
Rectum	12	20
<i>Chemotherapy</i>		
Yes	18	30
No	42	73
<i>Chemotherapy outcome</i>		
Relapse/remission after adjuvant treatment	10/50	

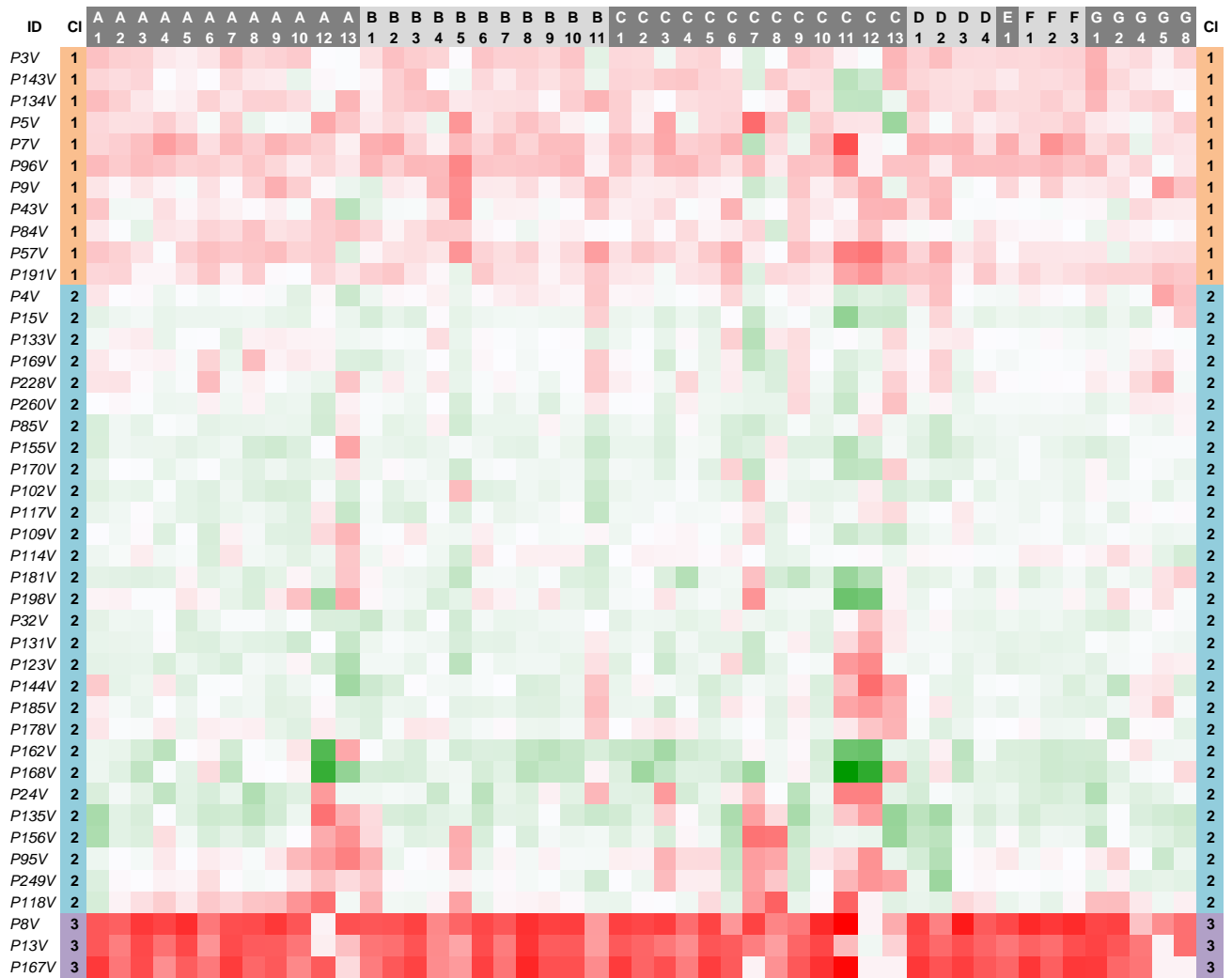
Pancreatic cancer

Characteristics	N	%
<i>Age at diagnosis, mean±S.D. (years)</i>	63.9 ± 7.5	
<i>Gender</i>		
Male	14	44
Female	18	56
<i>Primary tumor size</i>		
pT1	1	3
pT2	4	13
pT3	26	81
pT4	1	3
<i>Regional lymph node metastasis</i>		
Absent (pN0)	14	44
Present (pN1)	18	56
<i>Distant metastasis</i>		
cM0	31	97
cM1	1	3
<i>Pathological stage</i>		
I	3	9
II	27	85
III	1	3
IV	1	3
<i>Histological grade</i>		
G1	1	3
G2	20	63
G3	11	34
<i>Angioinvasion</i>		
pA0	21	66
pA1	11	34
<i>Perineural invasion</i>		
pP0	8	25
pP1	24	75
<i>Resection margins</i>		
R0 negative margin status	28	88
R1 positive margin status	4	12
<i>KRAS mutations in codons 12 and 13</i>		
wild type (GGTGGC)	17	53
G12V (GTTGGC)	7	22
G12D (GATGGC)	5	16
G12R (CGTGGC)	3	9
<i>Adjuvant chemotherapy</i>		
yes	19	59
no	11	41
unknown	2	-

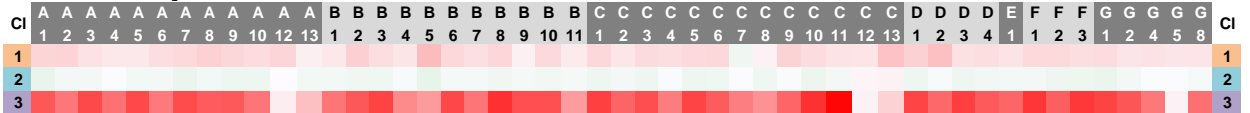
Breast cancer

Characteristics	N	%
<i>Age at diagnosis, mean±S.D. (years)</i>	53.0 ± 11.5	
<i>Menopausal status</i>		
Premenopausal	31	46
Postmenopausal	37	54
<i>Pathological tumor size, mean ±S.D. (mm)</i>	21.0 ± 14.7	
<i>Regional lymph node metastasis</i>		
Absent (pN0)	41	60
Present (pN1-3)	27	40
<i>Pathological stage</i>		
I	24	37
II	34	52
III	7	11
Not assessed	3	-
<i>Histological grade of tumor</i>		
G1	8	12
G2	29	44
G3	29	44
Not assessed	2	-
<i>Histological type of tumor</i>		
Invasive ductal carcinoma	57	84
Other type	11	16
<i>Estrogen receptor expression</i>		
Positive	47	69
Negative	21	31
<i>Progesterone receptor expression</i>		
Positive	48	71
Negative	20	29
<i>Expression of ERBB2</i>		
Positive	16	24
Negative	51	76
Not assessed	1	-
<i>Expression of Ki67, mean±S.D. (%)</i>		
Not assessed	1	-
<i>Response to neoadjuvant chemotherapy</i>		
Complete or partial response/ Stable disease or progression	38/25	60/40
Not assessed	5	-

Figure S1: Heat maps showing results of the tree clustering (Ward's method, Euclidean distances) of the expression levels of 49 human ABC transporters (including *ABCC13* pseudogene) in non-neoplastic (control) tissues of breast carcinoma patients; CI, cluster



Cluster summary with median values



Normalized lowest value highest value
 Gene: upregulation downregulation

Figure S2: Results of the statistical analyses (the two-tailed Mann-Whitney *U* test) comparing downregulated versus upregulated cases (based on the expression in non-neoplastic tissues) within the Colorectal I cohort for the individual ABC genes – *ABCA3* and *ABCA5*

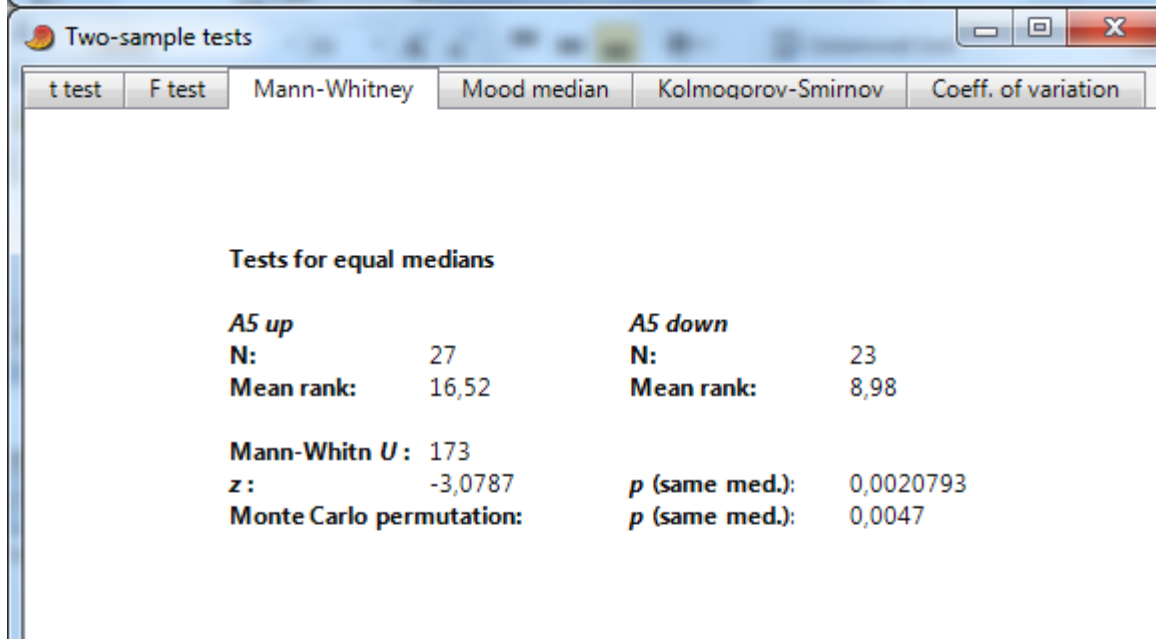
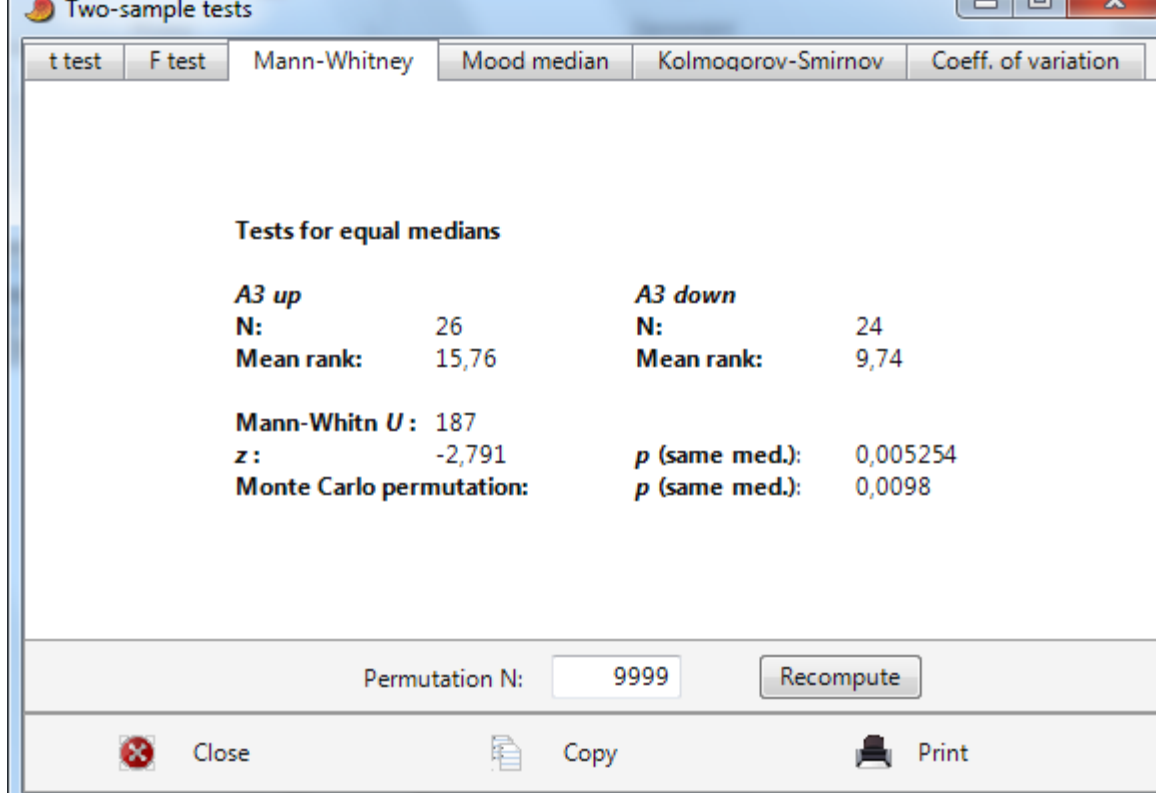


Figure S3: Results of the statistical analyses (the two-tailed Mann-Whitney *U* test) comparing downregulated versus upregulated cases (based on the expression in non-neoplastic tissues) within the Colorectal I cohort for the individual ABC genes – *ABCB8* and *ABCB10*




Two-sample tests

t test F test Mann-Whitney Mood median Kolmogorov-Smirnov Coeff. of variation

Tests for equal medians

B8 up		B8 down	
N:	25	N:	25
Mean rank:	15,5	Mean rank:	10
Mann-Whitn U:	175		
z:	-3,0688	p (same med.):	0,0021492
Monte Carlo permutation:		p (same med.):	0,0041

Permutation N:

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Two-sample tests

t test F test Mann-Whitney Mood median Kolmogorov-Smirnov Coeff. of variation

Tests for equal medians

B10 up		B10 down	
N:	25	N:	25
Mean rank:	15,5	Mean rank:	10
Mann-Whitn U:	175		
z:	-3,0688	p (same med.):	0,0021492
Monte Carlo permutation:		p (same med.):	0,0042

Figure S4: Results of the statistical analyses (the two-tailed Mann-Whitney *U* test) comparing downregulated versus upregulated cases (based on the expression in non-neoplastic tissues) within the Colorectal I cohort for the individual ABC genes – *ABCC1* and *ABCC6*

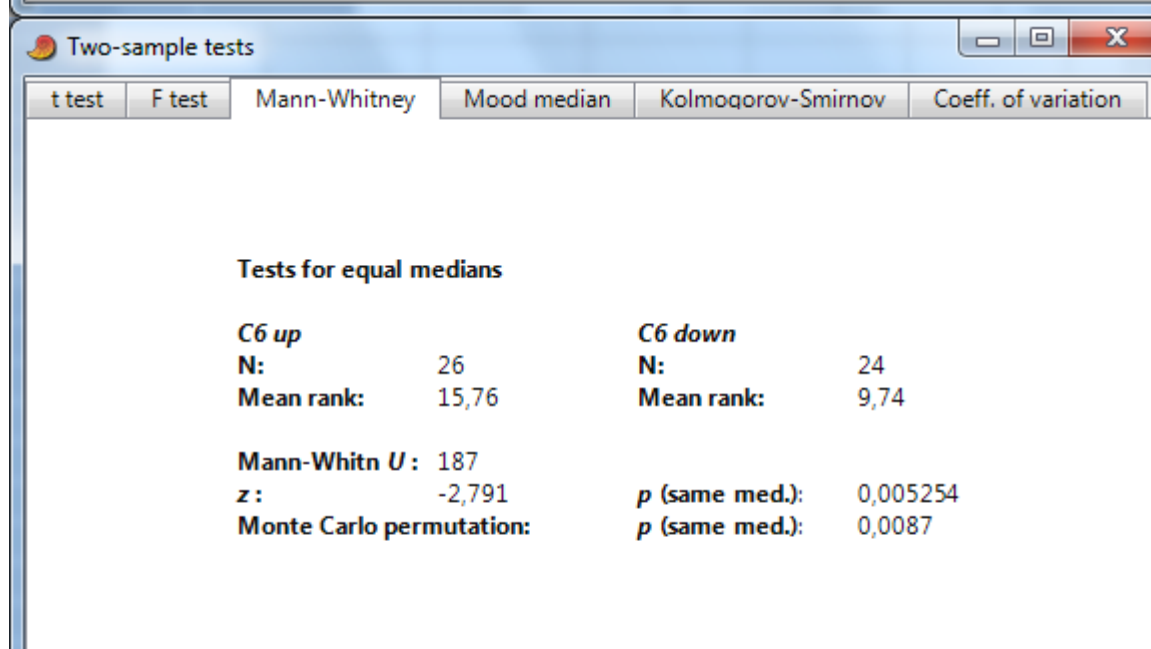
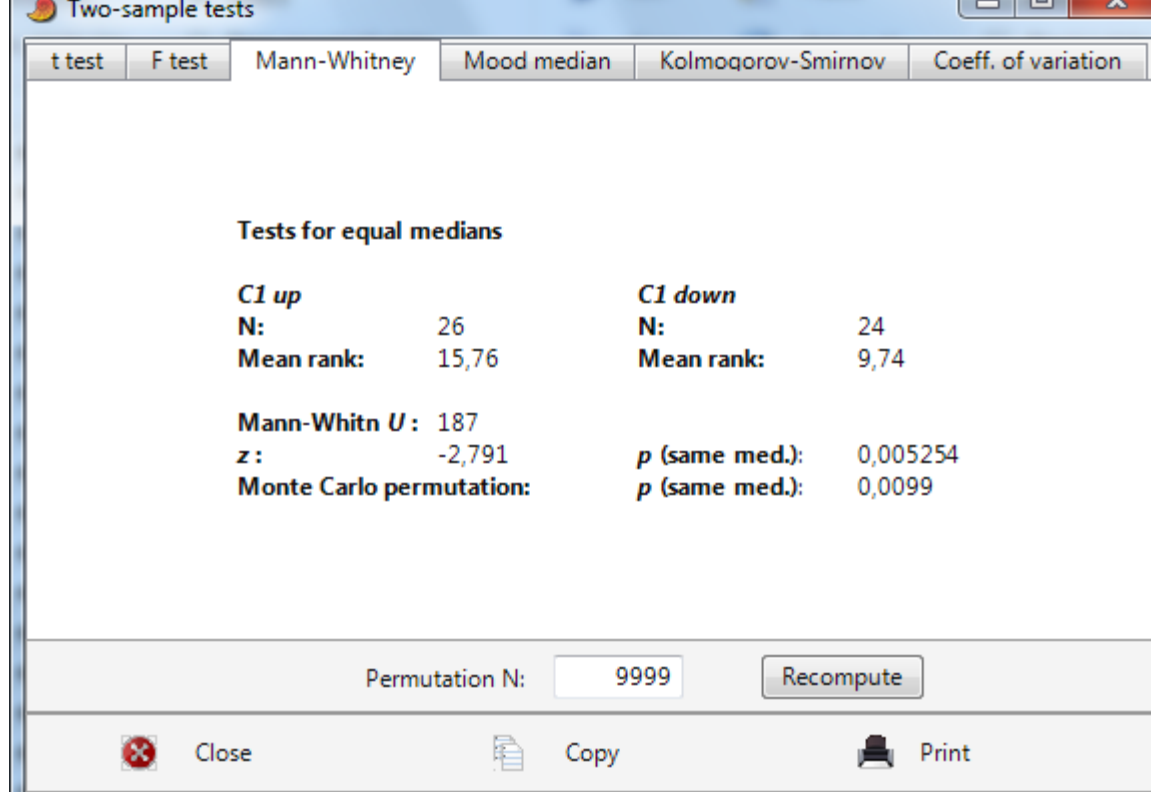


Figure S5: Results of the statistical analyses (the two-tailed Mann-Whitney *U* test) comparing downregulated versus upregulated cases (based on the expression in non-neoplastic tissues) within the Colorectal I cohort for the individual ABC genes – *ABCC7* and *ABCC8*

Two-sample tests

t test F test **Mann-Whitney** Mood median Kolmogorov-Smirnov Coeff. of variation

Tests for equal medians

C7 up		C7 down	
N:	24	N:	26
Mean rank:	15,24	Mean rank:	10,26
Mann-Whitn U:	162		
z:	-3,3515	p (same med.):	0,0008038
Monte Carlo permutation:		p (same med.):	0,0017

Permutation N:

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Two-sample tests

t test F test **Mann-Whitney** Mood median Kolmogorov-Smirnov Coeff. of variation

Tests for equal medians

C8 up		C8 down	
N:	27	N:	23
Mean rank:	17,52	Mean rank:	7,98
Mann-Whitn U:	123		
z:	-4,2023	p (same med.):	2,6425E-05
Monte Carlo permutation:		p (same med.):	0,0001

Figure S6: Results of the statistical analyses (the two-tailed Mann-Whitney *U* test) comparing downregulated versus upregulated cases (based on the expression in non-neoplastic tissues) within the Colorectal I cohort for the individual ABC genes – *ABCC10* and *ABCF1*




Two-sample tests

t test F test Mann-Whitney Mood median Kolmogorov-Smirnov Coeff. of variation

Tests for equal medians

<i>C10 up</i>		<i>C10 down</i>	
N:	23	N:	27
Mean rank:	14,48	Mean rank:	11,02
Mann-Whitn <i>U</i>:	173	<i>p</i> (same med.):	0,0020793
<i>z</i>:	-3,0787	<i>p</i> (same med.):	0,0049
Monte Carlo permutation:			

Permutation N:

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Two-sample tests

t test F test Mann-Whitney Mood median Kolmogorov-Smirnov Coeff. of variation

Tests for equal medians

<i>F1 up</i>		<i>F1 down</i>	
N:	28	N:	22
Mean rank:	17,28	Mean rank:	8,22
Mann-Whitn <i>U</i>:	158	<i>p</i> (same med.):	0,00074307
<i>z</i>:	-3,3732	<i>p</i> (same med.):	0,0013
Monte Carlo permutation:			

Figure S7: Results of the survival analyses (the Kaplan-Meier plots, the Log rank test p-values) comparing downregulated versus upregulated cases (based on the expression in non-neoplastic tissues) within the pancreatic tissue cohort for the individual ABC genes – *ABCA2*, *ABCA4*, *ABCA5*, *ABCC2*, and *ABCD4*

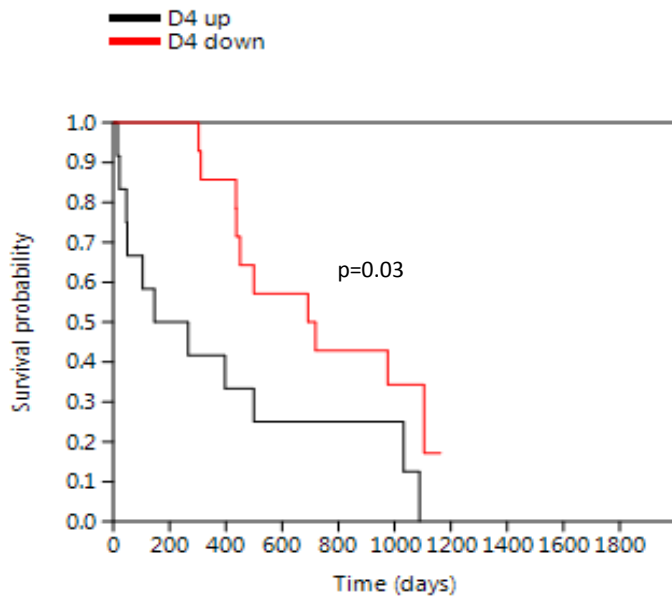
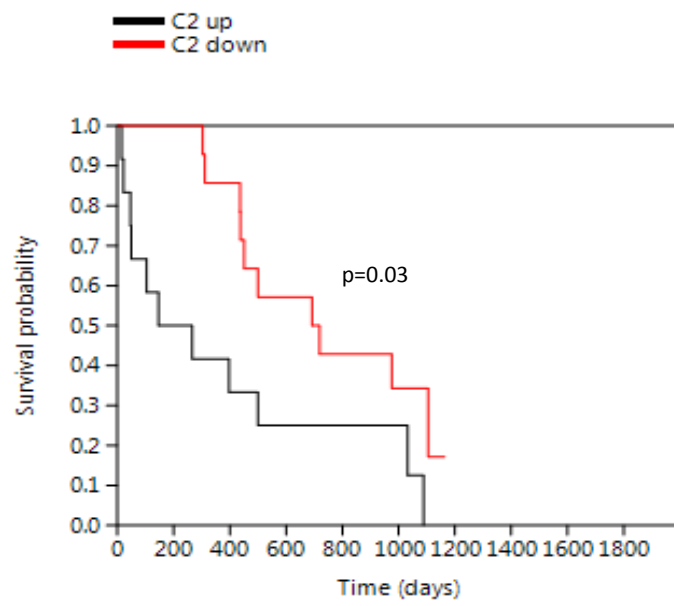
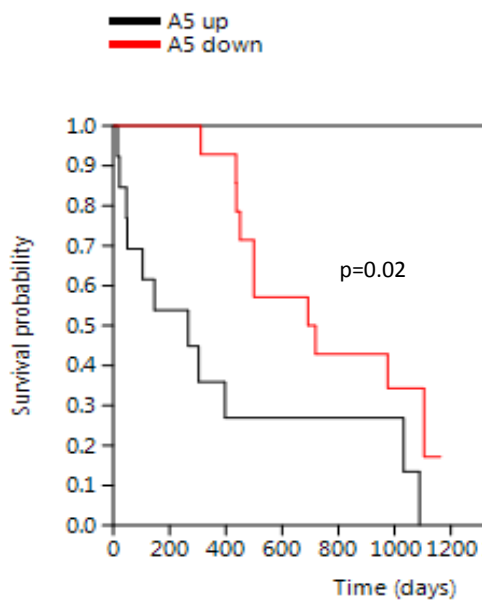
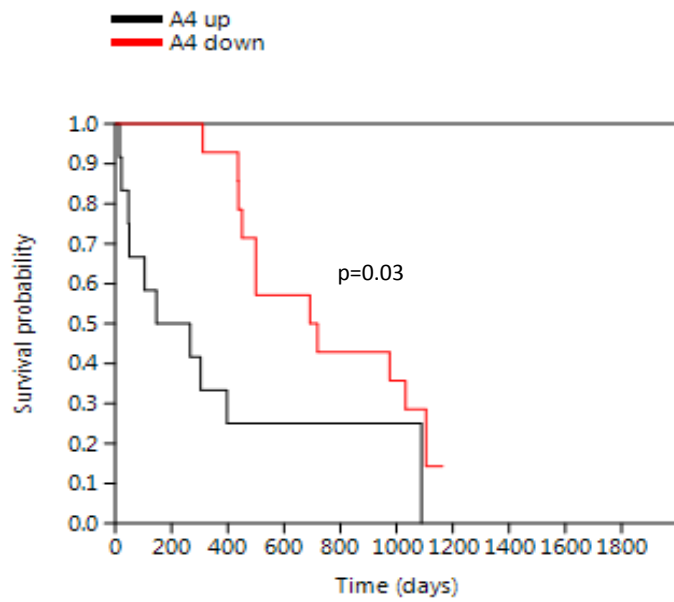
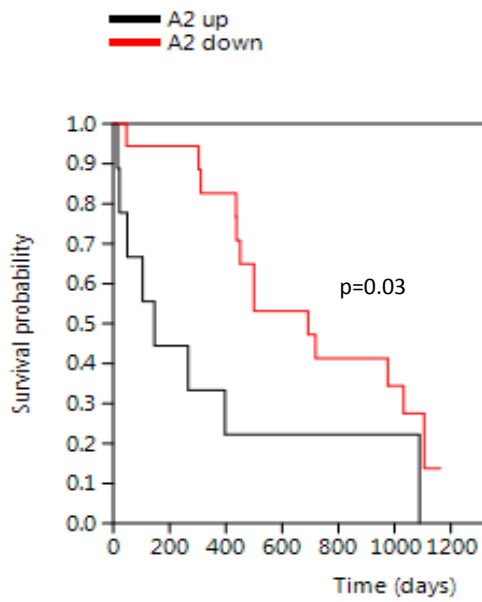


Figure S8: Survival analysis (the Kaplan-Meier plots, the Log rank test p-values) comparing the cluster 1 (with reduced number of ABC genes) and the rest – clusters 2 and 3 (representing downregulation versus median expression and upregulation of ABC genes) within the Colorectal I cohort (based on the expression in non-neoplastic tissues)

Cluster 1
Clusters 2+3

