

Supplementary Table 1. Epidemiological, colon tumor pathology, and tumor grade of patients with right-sided colon cancer, left-sided colon cancer and rectum cancer

	Right colon (n=407)		Left colon (n=644)		Rectum (n=452)		P
	Case No.	%	Case No.	%	Case No.	%	
Age	70.89		70.06		69.36		0.116
Gender							
Male	236	58	444	68.9	309	68.4	0.001
Female	171	42	200	31.1	143	31.6	
Synchronous tumor	8	2	14	2.2	9	2	0.966
Borrmann type							
Type I	66	16.2	102	15.8	78	17.3	0.442
Type II	116	28.5	180	28	142	31.4	
Type III	218	53.5	342	53.1	225	50	
Type IV	7	1.8	20	3.1	7	1.5	
Adeno Ca	371	91.2	619	96.1	434	96	0.001
Mucinous Ca (>50%)	30	7.4	24	3.7	14	3.1	0.005
Signet cell Ca	7	1.7	5	0.7	3	0.6	0.226
Poor differentiation	47	11.5	23	3.6	17	3.8	<0.001
LVI	70	17.2	128	20	92	20.4	0.446

TNM stage								
T	T _{is}	9	2.2	7	1.1	6	1.3	<0.001
	T1	10	2.4	20	3.1	20	4.4	
	T2	24	5.9	68	10.6	86	19.0	
	T3	311	76.4	476	73.9	297	65.7	
	T4	53	13	73	11.3	43	9.5	
N	N0	214	52.6	361	56.1	248	54.9	0.47
	N1	99	24.3	150	23.3	94	20.8	
	N2	94	23.1	133	20.7	110	24.3	
M	M0	318	78.1	541	84.0	381	84.3	0.025
	M1	89	21.9	103	16.0	71	15.7	
TNM	Stage 0	9	2.2	7	1.1	6	1.3	<0.001
	Stage 1	28	6.9	74	11.5	86	19.0	
	Stage 2	160	39.3	258	40.1	146	32.3	
	Stage 3	121	29.7	202	31.4	143	31.6	
	Stage 4	89	21.9	103	16.0	71	15.7	

Supplementary Table 2. Rate of distal metastasis between right-sided colon cancer and left-sided colorectal cancer

	Right colon (n=407)		Left colon (n=1096)		P
	Case No.	%	Case No.	%	
Metastasis	140	34.4	349	31.8	0.347
Location					
Local recurrence	5	1.2	29	2.6	0.101
Liver	72	17.7	202	18.4	0.741
Lung	39	9.6	118	10.8	0.505
Bone	4	1.0	14	1.3	0.641
Peritoneal	52	12.8	63	5.7	<0.001
Other	11	2.7	28	2.6	0.873
Metastasis number					
0	267	65.6	747	68.2	0.741
1	104	25.6	263	24.0	
2	27	6.6	64	5.8	
3	7	1.7	20	1.8	
4	2	0.5	2	0.2	

Supplementary Table 3. Univariate and multivariate analysis for overall survival of patients

with colorectal cancer

Variables	Univariate			Multivariate		
	Hazard ratio	95 % CI	p value	Hazard ratio	95 % CI	p value
Location (R/L)	1.2	1.01-1.42	0.036	1.04	1.69-2.39	0.664
Age > 70	1.874	1.59-2.21	<0.001	2.008	1.69-2.39	<0.001
Gender Male	1.344	1.13-1.59	0.001	1.212	1.01-1.45	0.036
AdenoCa	0.518	0.39-0.69	<0.001	0.513	0.24-1.07	0.074
Mucinous Ca	1.674	1.24-2.27	0.001	0.753	0.36-1.57	0.448
Signet cell Ca	2.36	1.26-4.41	0.007	0.749	0.36-1.57	0.462
Poor differentiation	1.989	1.49-2.66	<0.001	1.417	1.02-1.97	0.038
LVI	2.254	1.90-2.68	<0.001	1.506	1.24-1.83	<0.001
T>3	1.804	1.42-2.29	<0.001	1.147	0.89-1.47	0.281
N>1	2.151	1.83-2.52	<0.001	1.367	1.14-1.64	0.001
M=1	5.197	4.38-6.17	<0.001	4.457	3.68-5.40	<0.001
<i>BRAF</i>	1.361	0.97-1.91	0.076	1.473	1.03-2.12	0.036
<i>KRAS</i>	1.02	0.87-1.19	0.808			
<i>HRAS</i>	0.683	0.35-1.32	0.257			
<i>NRAS</i>	1.395	0.98-1.99	0.067	1.523	1.06-2.18	0.022

<i>APC</i>	0.951	0.80-1.13	0.567			
<i>SMAD4</i>	0.817	0.53-1.25	0.352			
<i>TGF-β</i>	0.525	0.30-0.90	0.022	0.443	0.25-0.80	0.006
<i>TP53</i>	0.964	0.81-1.15	0.677			
<i>PIK3CA</i>	0.932	0.74-1.16	0.541			
<i>PTEN</i>	0.664	0.21-2.07	0.48			
<i>FBXW7</i>	0.917	0.69-1.23	0.563			
<i>AKT1</i>	0.68	0.25-1.81	0.442			
<i>MSI-high</i>	0.833	0.63-1.1	0.196	1.019	0.75-1.37	0.901

Supplementary Table 4. Univariate and multivariate analysis of overall survival among patients with right-sided colonic cancer

Variables	Univariate			Multivariate		
	Hazard ratio	95 % CI	p value	Hazard ratio	95 % CI	p value
Age > 70	1.815	1.33-2.49	<0.001	1.722	1.23-2.4	0.001
Gender Male	1.238	0.92-1.66	0.155	1.032	0.73-1.37	0.994
AdenoCa	1.172	0.71-1.93	0.533			
Mucinous Ca	0.778	0.45-1.35	0.37			
Signet cell Ca	0.982	0.31-3.08	0.975			
Poor differentiation	1.716	1.13-2.6	0.011	2.239	1.40-3.58	0.001
LVI	2.125	1.517-2.98	<0.001	1.36	0.93-1.99	0.113
T>3	1.556	0.92-2.64	0.101	0.984	0.57-1.7	0.984
N>1	2.452	1.82-3.3	<0.001	1.521	1.09-2.12	0.013
M=1	5.073	3.75-6.86	<0.001	4.313	3.09-6.03	<0.001
<i>BRAF</i>	1.175	0.71-1.94	0.528			
<i>KRAS</i>	1.001	0.75-1.33	0.996			
<i>HRAS</i>	0.58	0.14-2.25	0.413			
<i>NRAS</i>	1.67	0.91-3.07	0.1	1.305	0.69-2.45	0.406
<i>APC</i>	1.014	0.74-1.39	0.934			

<i>SMAD4</i>	0.922	0.49-1.74	0.802			
<i>TGF-β</i>	0.3	0.12-0.73	0.008	0.488	0.19-1.28	0.144
<i>TP53</i>	1.307	0.95-1.80	0.098			
<i>PIK3CA</i>	0.958	0.66-1.39	0.819			
<i>PTEN</i>	0.355	0.05-2.54	0.355			
<i>FBXW7</i>	0.984	0.59-1.64	0.95			
<i>AKT1</i>	0.959	0.31-3.0	0.942			
<i>MSI-high</i>	0.538	0.35-0.84	0.006	0.739	0.45-1.21	0.231

Supplementary Table 5. Univariate and multivariate analysis of overall survival among patients with left-sided colorectal cancer

Variables	Univariate			Multivariate		
	Hazard ratio	95 % CI	p value	Hazard ratio	95 % CI	p value
Age > 70	1.888	1.55-2.3	<0.001	2.02	1.64-2.48	<0.001
Gender Male	1.441	1.17-1.78	0.001	1.357	1.09-1.69	0.006
AdenoCa	0.283	0.2-0.4	<0.001	0.218	0.08-0.61	0.004
Mucinous Ca	2.818	1.96-4.06	<0.001	0.336	0.12-0.93	0.336
Signet cell Ca	5.342	2.52-11.3	<0.001	1.125	0.43-2.96	0.812
Poor differentiation	2.209	1.45-3.36	<0.001	1.048	0.64-1.72	0.853
LVI	2.333	1.91-2.86	<0.001	1.496	1.19-1.89	0.001
T>3	1.841	1.41-2.4	<0.001	1.193	0.9-1.58	0.221
N>1	2.02	1.68-2.43	<0.001	1.303	1.05-1.63	0.019
M=1	5.157	4.18-6.36	<0.001	4.172	3.28-5.3	<0.001
<i>BRAF</i>	1.459	0.91-2.34	0.117	1.445	0.89-2.36	0.141
<i>KRAS</i>	1.004	0.83-1.21	0.969			
<i>HRAS</i>	0.734	0.35-1.55	0.416			
<i>NRAS</i>	1.285	0.83-1.99	0.261			
<i>APC</i>	0.928	0.76-1.14	0.474			

<i>SMAD4</i>	0.724	0.41-1.28	0.269			
<i>TGF-β</i>	0.797	0.4-1.61	0.526			
<i>TP53</i>	0.874	0.71-1.07	0.198	1	0.81-1.23	0.997
<i>PIK3CA</i>	0.889	0.67-1.19	0.424			
<i>PTEN</i>	1.041	0.26-4.18	0.955			
<i>FBXW7</i>	0.897	0.63-1.28	0.548			
<i>AKT1</i>	0.356	0.05-2.53	0.302			
<i>MSI-high</i>	1.108	0.78-1.58	0.57			