

**Additional file 1.** Clinicopathological characteristics of normal liver and HCC samples

<b>Sample #</b>	<b>Appearance</b>	<b>Diagnosis/Histology</b>	<b>Differentiation</b>	<b>Stage</b>
N1	Normal	hcc	tumor-adjacent normal	0
N2	Normal	hcc/adenocarcinoma	tumor-adjacent normal	0
N3	Normal	hcc	tumor-adjacent normal	0
N4	Normal	hcc	tumor-adjacent normal	0
N5	Normal	granuloma	tumor-adjacent normal	0
N6	Normal	nodular hyperplasia of liver, focal	tumor-adjacent normal	0
N7	Normal	hcc	tumor-adjacent normal	0
N8	Normal	hcc	tumor-adjacent normal	0
T1	Tumor	hcc	well	1
T2	Tumor	hcc	moderate	1
T3	Tumor	hcc	well	1
T4	Tumor	hcc	N/A	1
T5	Tumor	hcc	poor	1
T6	Tumor	hcc	N/A	1
T7	Tumor	hcc	moderate	1
T8	Tumor	hcc	moderate	1
T9	Tumor	hcc	N/A	1
T10	Tumor	hcc	moderate	2
T11	Tumor	hcc/adenocarcinoma	moderate	2
T12	Tumor	hcc/invasive	N/A	2
T13	Tumor	hcc/adenocarcinoma	poor	2
T14	Tumor	hcc	well	2
T15	Tumor	hcc	moderate	2
T16	Tumor	hcc	well	2
T17	Tumor	hcc	moderate	2
T18	Tumor	hcc/adenocarcinoma	poor	2
T19	Tumor	hcc	well	2
T20	Tumor	hcc/invasive	N/A	2
T21	Tumor	hcc	well	3a
T22	Tumor	hcc	poor	3a
T23	Tumor	hcc	moderate	3a
T24	Tumor	hcc	moderate	3a
T25	Tumor	hcc	moderate	3a
T26	Tumor	hcc	well	3a
T27	Tumor	hcc	moderate	3a
T28	Tumor	hcc	moderate	3a
T29	Tumor	hcc	well	3a
T30	Tumor	hcc	poor	3a
T31	Tumor	hcc	moderate	3a
T32	Tumor	hcc	moderate	3a
T33	Tumor	hcc	moderate	3a
T34	Tumor	hcc	moderate	4
T35	Tumor	hcc/from omentum	poor	4