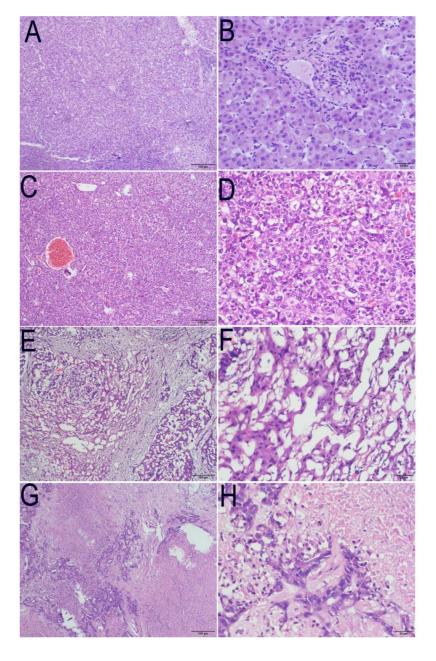
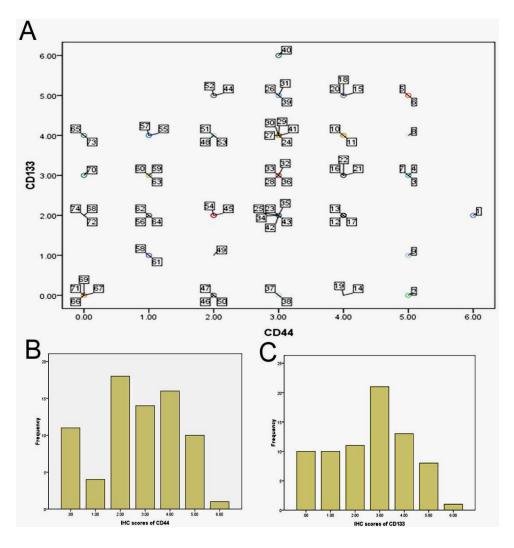
## Prognostic value of the expression of cancer stem cell-related markers CD133 and CD44 in hepatocellular carcinoma: From patients to patient-derived tumor xenograft models

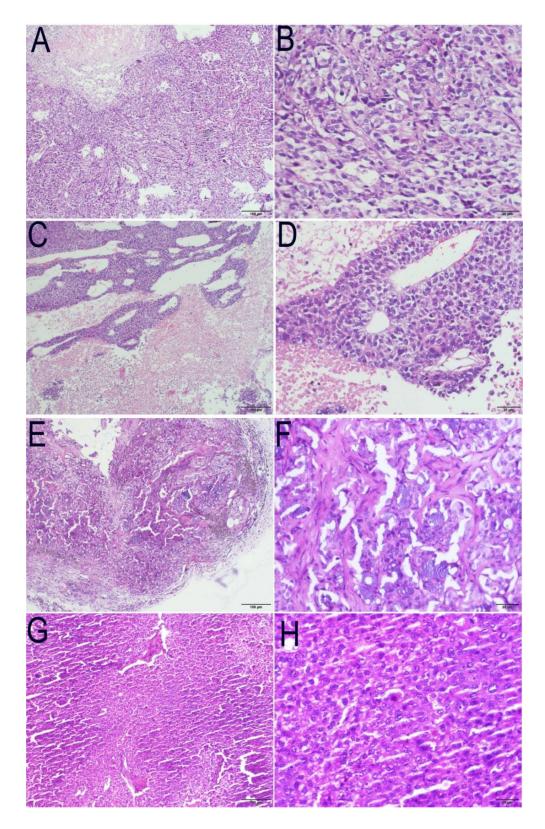
**Supplementary Materials** 



Supplementary Figure S1: Low magnification (left panel, 100×) and high magnification (right panel, 400×) using HE staining from the IHC staining cases of the patients. Representative case 1 HE staining (A–B) and its high expression of CD133 in Fig 2 vs case 2 HE staining (C–D) and its low expression of CD133 in Fig 2; Representative case 3 HE staining (E–F) and its high expression of CD44 in Figure 2 vs case 4 HE staining (G–H) and its low expression of CD44 in Figure 2 of the text.



Supplementary Figure S2: Detailed quantification of samples in HCC patients stained by scoring system (A), and IHC scores of CD44 (B) and CD133 (C), respectively.



Supplementary Figure S3: Low magnification (left panel, 100×) and high magnification (right panel, 400×) using HE staining from the IHC staining cases of the PDX models. Representative case 1 HE staining (A–B) and its high expression of CD133 in Figure 5 vs case 2 HE staining (C–D) and its low expression of CD133 in Fig 5; Representative case 3 HE staining (E–F) and its high expression of CD44 in Fig 5 vs case 4 HE staining (G–H) and its low expression of CD44 in Figure 5 of the text.

## **Supplementary Table S1: The primer sequence of 12 CSC markers**

Gene	<b>Primers (5'→3')</b>	GenBank Accession			
CD133	Fwd TGGATGCAGAACTTGACAACGT	NM_006017.2			
	Rev ATACCTGCTACGACAGTCGTGGT				
CD90	Fwd GACCCGTGAGACAAAGAAGC	NM_006288.4			
	Rev GCCCTCACACTTGACCAGTT				
CD44	Fwd ATGGACAAGTTTTGGTGGCACGC	NM_001202556.1			
	Rev AAGATGTAACCTCCTGAAGTGCTGC				
ALDH1	Fwd ATCTTTGCTGACTGTGACCT	NM_012190.3			
	Rev GCACCTCTTCTACCACTCTC				
Vimentin	Fwd GGGACCTCTACGAGGAGGAG	NM_003380.3			
	Rev CGCATTGTCAACATCCTGTC				
Oct-4	Fwd GCAGCGACTATGCACAACGA	NM_002701			
	Rev CCAGAGTGGTGACGGAGACA				
Sox-2	Fwd CATCACCCACAGCAAATGACA	NM_003106.2			
	Rev GCTCCTACCGTACCACTAGAACTT				
CK 7	Fwd TGAATGATGAGATCAACTTCCTCAG	NM_005556.3			
	Rev TGTCGGAGATCTGGGACTGC				
CK19	Fwd CGGGCATAAAAGGCGCCAGGT	NM_182920.1			
	Rev GAGACCCCGAAGACGACAGGAAAC				
Nestin	Fwd TCGCTTAGAGGTGCAACAGC	NM_012987			
	Rev CTCTGTAGACCTTGCTTCTCC				
CD13	Fwd ACGCCACCTCTACATCATC	NM_001150			
	Rev AGCACCACCTCCTTGTTCTC				
EpCam	Fwd AGCTCAGGAAGAATGTG	NM_002354			
	Rev TGAAGTACACTGGCATTGACG				
GAPDH	Fwd AATGAAGGGGTCATTGATGG	NM_002046			
	Rev AAGGTGAAGGTCGGAGTCAA				

## Supplementary Table S2: The IHC scores in CD44 high/low groups and CD133 high/low groups in PDX models

# of mice	Scores of CD44 expression in CD133 low group	# of mice	Scores of CD44 expression in CD133 high group	# of mice	Scores of CD133 expression in CD44 low group	# of mice	Scores of CD133 expression in CD44 high group
1	4	1	5	1	5	1	5
2	2	2	5	2	2	2	4
3	1	3	2	3	3	3	2
4	2	4	2	4	2	4	2
5	2	5	3	5	2	5	2
6	2	6	3	6	3	6	1
		7	5			7	3
		8	5			8	2
		9	4			9	3
		10	1			10	2
		11	2			11	5
		12	2			12	3
		13	4			13	1
		14	3			14	3
		15	2			15	3
		16	6			16	2
		17	2			17	2
		18	3			18	3