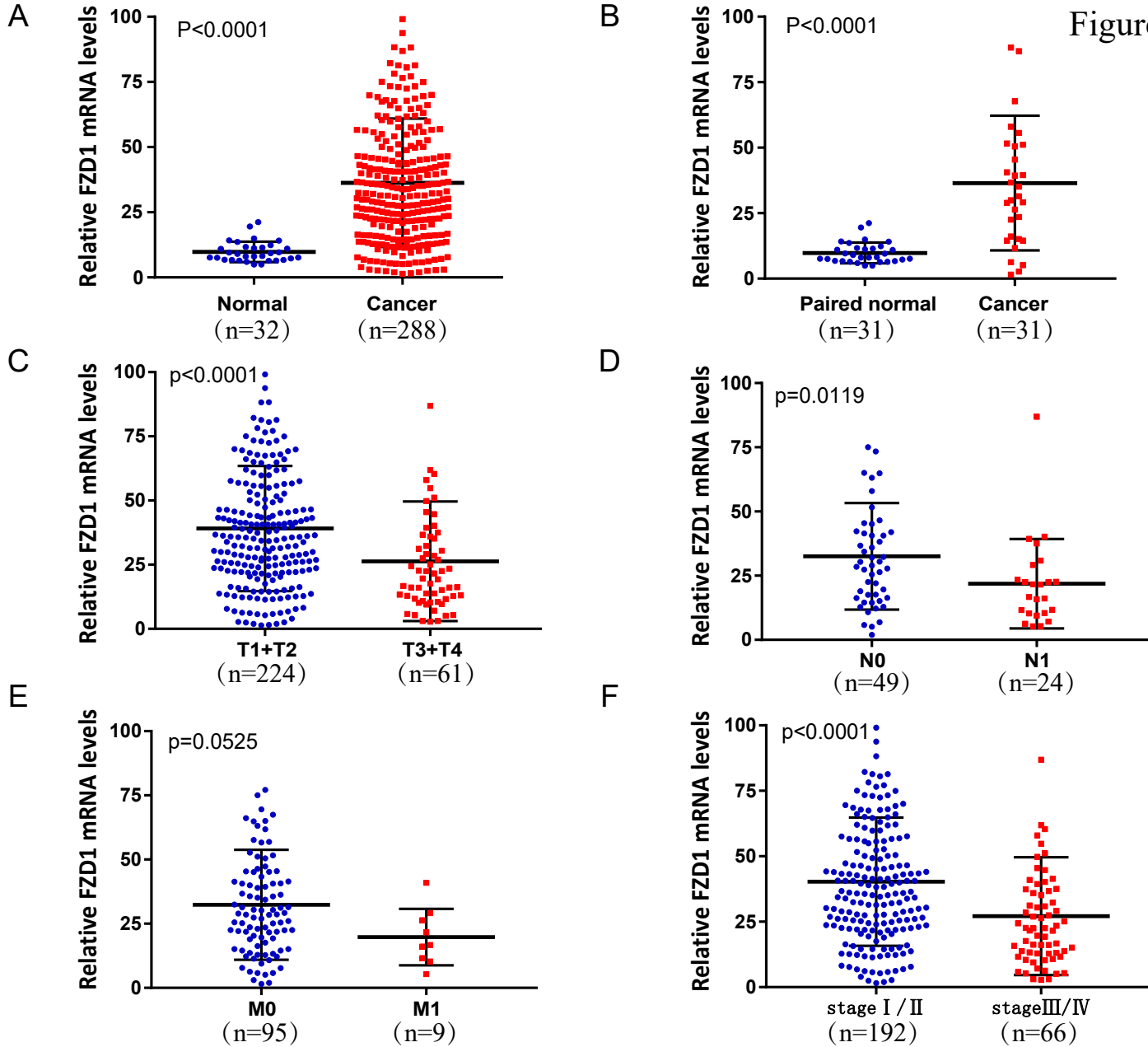
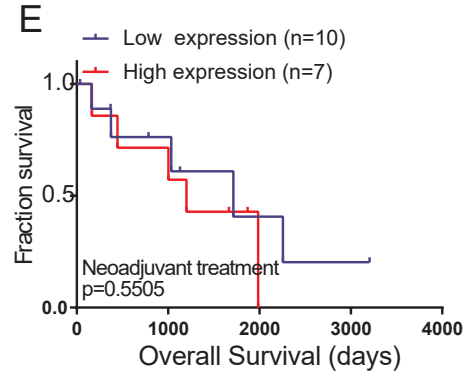
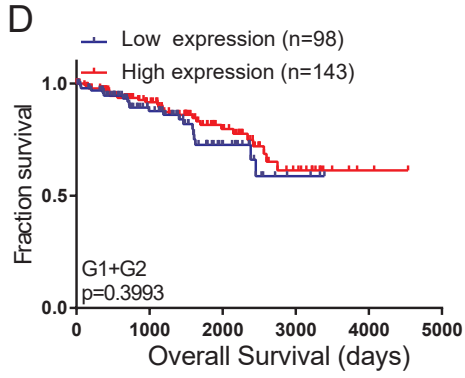
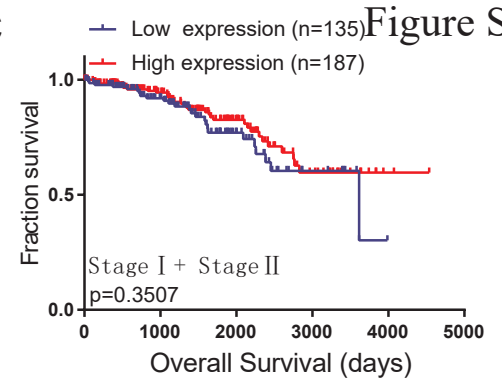
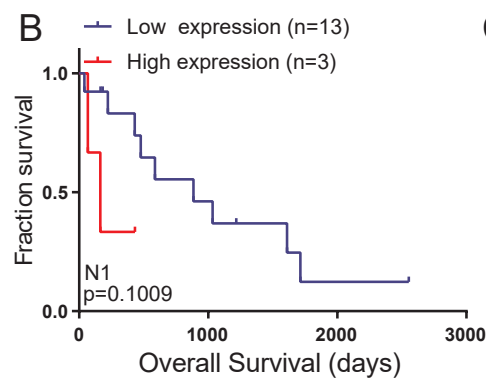
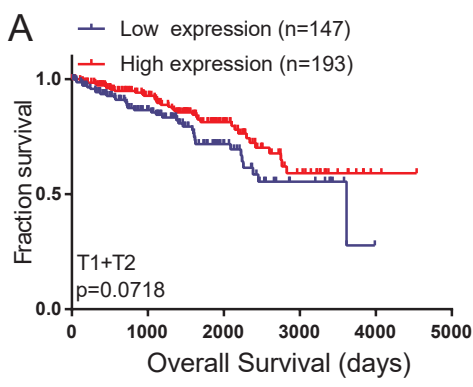


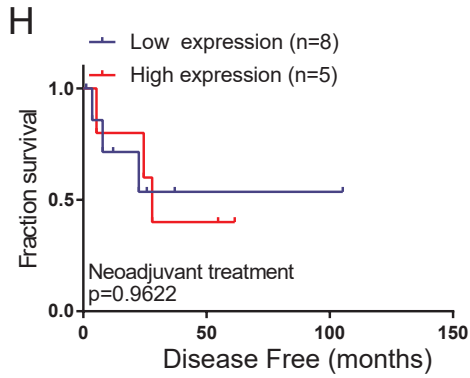
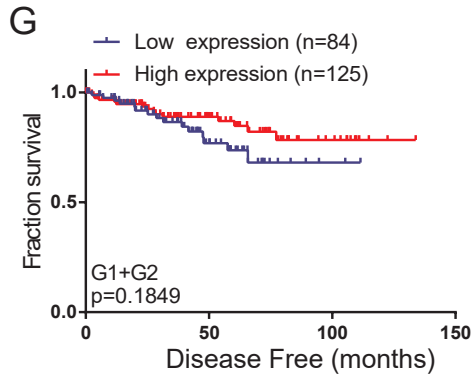
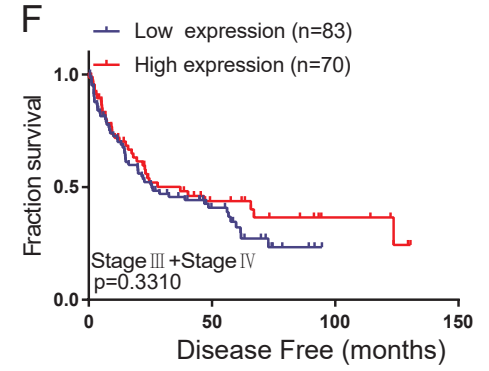
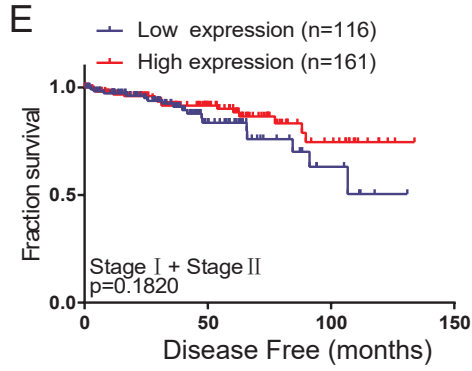
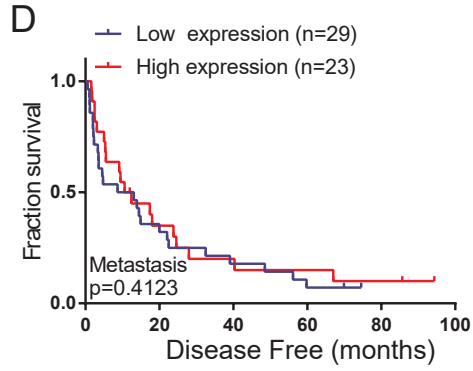
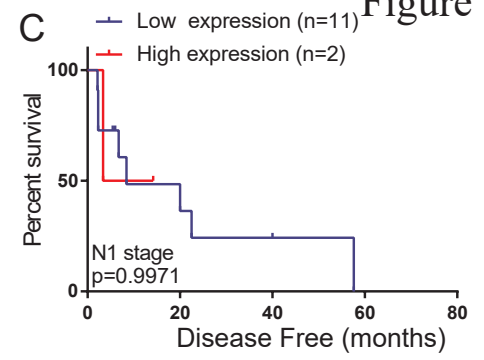
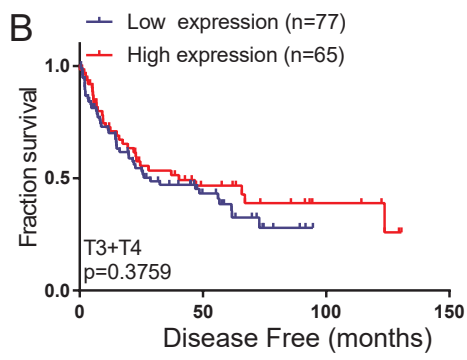
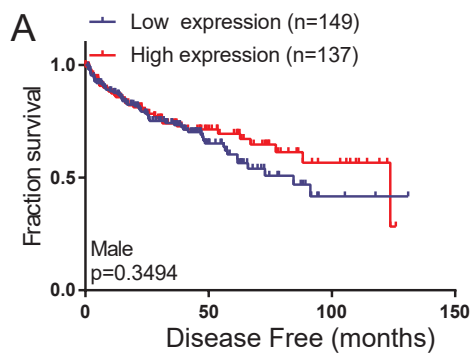
**Fig. S1** FZD1 expression was upregulated in pRCC tissues compared with normal (A) and paired non-cancerous tissues (B) based on the TCGA database. The mRNA levels of FZD1 was compared in different clinicopathological characteristics: (C) T stage, (D) N stage, (E) Metastasis status and (F) TNM stage. Data differences were tested with Student's T-test.

**Fig. S2** The correlation between FZD1 expression and OS of ccRCC patients with (A) T1+T2 stage, (B) N1 stage, (C) TNM (I+II) stage, (D) G1+G2 stage and (E) Neoadjuvant treatment status.

**Fig. S3** The correlation between FZD1 expression and DFS of ccRCC patients with (A) male, (B) T3+T4 stage, (C) N1 stage, (D) metastasis status, (E) TNM (I+II) stage, (F) TNM (III+IV) stage, (G) G1+G2 stage and (H) Neoadjuvant treatment group.







**Table S1 Univariate and multivariate analyses of FZD1 mRNA level and pRCC patient overall survival**

Variable	Univariate cox regression		Multivariate cox regression	
	HR(95%CI)	P value	HR(95%CI)	P value
<b>Age (years)</b>		0.901		0.734
<60	Reference		Reference	
≥60	1.04(0.561-1.927)		1.138(0.539-2.403)	
<b>Gender</b>		0.149		0.025
Female	Reference		Reference	
Male	0.617(0.32-1.19)		0.395(0.176-0.888)	
<b>Race</b>			1.253(0.158-9.923)	
White	Reference		Reference	
Asian	6.111(0.787-47.464)	0.084	14.339(1.344-152.999)	0.027
Black <sup>†</sup>	0.977(0.431-2.213)	0.955	0.425(0.162-1.118)	0.083
Unknown	0.324(0.044-2.372)	0.267	1.253(0.158-9.923)	0.831
<b>Pathological stage</b>				
Stage I			Reference	
Stage II	0.958(0.214-4.295)	0.955	0.043 (0.003-0.69)	0.026
Stage III	4.779(2.26-10.108)	<0.001	0.427(0.036-4.995)	0.498
Stage IV	16.112(6.698-38.758)	<0.001	0.622 (0.038-10.089)	0.738
Unknown	1.655(0.58-4.724)	0.346	0.282 (0.035-2.26)	0.233
<b>T stage</b>				
T1	Reference		Reference	
T2	3.129(1.293-7.571)	0.011	24.05 (2.321-249.181)	0.008
T3	7.427(3.709-14.874)	<0.001	10.092 (0.982-103.765)	0.052
T4	0	0.982	0	0.981
Unknown	5.363(1.184-24.297)	0.029	15.315 (1.297-180.846)	0.03
<b>N stage</b>				
N0	Reference		Reference	
N1	4.303(1.723-10.746)	0.002	1.267 (0.425-3.778)	0.672
Unknown	0.597(0.256-1.393)	0.233	0.581(0.211-1.598)	0.293
<b>M stage</b>				
M0	Reference		Reference	
M1	88.26(25.807-301.844)	<0.001	48.85(5.729-416.555)	0
Unknown	0.802(0.405-1.589)	0.527	2.169(0.896-5.25)	0.086
<b>FZD1 expression</b>		0.008		0.349
Low	Reference		Reference	
High	0.424(0.225-0.801)		0.7(0.332-1.475)	

<sup>†</sup> Black or african American; pRCC: papillary renal cell carcinoma

HR: estimated from Cox proportional hazard regression model; 95%CI: 95% interval of the estimated HR.