

**Table S3. Clinic-pathological characteristics of the TCGA cohort of 537 ccRCC patients**

	TCGA-KIRC	
	Alive ( <i>n</i> = 360)	Deceased ( <i>n</i> = 177)
Age, mean (SEM <sup>a</sup> )	58.8 (0.6)	64.2 (0.9)
Sex, <i>n</i> (%)		
Male	234 (65.0)	112 (63.3)
Female	126 (35.0)	65 (36.7)
Grade, <i>n</i> (%)		
Low	199 (55.3)	45 (25.4)
High	154 (42.8)	131 (74.0)
Unknown	7 (1.9)	1 (0.6)
AJCC stage <sup>b</sup> , <i>n</i> (%)		
I	224 (62.2)	45 (25.4)
II	44 (12.2)	13 (7.3)
III	74 (20.6)	51 (28.8)
IV	16 (4.4)	67 (37.9)
Unknown	2 (0.6)	1 (0.6)
T, <i>n</i> (%)		
<T2	225 (62.5)	50 (28.2)
≥T2	135 (37.5)	127 (71.8)
Lymph node metastasis, <i>n</i> (%)		
Positive	5 (1.4)	12 (6.8)
Negative	155 (43.1)	85 (48.0)
Unknown	200 (55.5)	80 (45.2)

<sup>a</sup>SEM, standard error of mean.

<sup>b</sup>Tumor AJCC stages according to the American Joint Committee on Cancer (AJCC) 7th edition.