Supplementary

Table S1 Primers used in real-time polymerase chain reaction assay

Gene name	Forward (5'-3')	Reverse (5'-3')
SRC	TGGCAAGATCACCAGACGG	GGCACCTTTCGTGGTCTCAC
AIFM2	GTGAGCGGGTGAGCAATCT	CTTGATGCCGGTGCAGAGAA
SLC2A6	CCGGACTACGACACCTTCC	GGATGTGTAGACCAGGGCATA
HMOX1	ATTTCAGAAGGGCCAGGTGA	GGAAGTAGACAGGGGCGAAGA
NGB	ACAGTGGGTGAGTCTCTGCT	CCCGTAGAGTTGGCTCCAG
MT1G	CTTCTCGCTTGGGAACTCTA	AGGGGTCAAGATTGTAGCAAA
DRD4	CCATCAGCGTGGACAGGTTC	GCAGGGTAGGAAGAAGGAGCA
AKR1C2	CAACTTCAACCACAGGCTGC	GGGTCCACCCATGGTTCTTC
GAPDH	AGCCTCAAGATCATCAGC	GAGTCCTTCCACGATACC

Table S2 Antibodies used in Western blot assay

Antibodies	Source	Identifier
DRD4	Abcam	ab20424
SRC	Abcam	ab133283
AIFM2	Abcam	ab302673
AKR1C2	Abcam	ab179448

Table S3 Clinical characteristics of the patients recruited for IHC

Disease	Sample ID	Age (years)	Sample types	PSA	Gleason score
BPH (N=6)	1	78	Biopsy	7.1	NA
	2	58	Biopsy	6.3	NA
	3	53	Biopsy	5.3	NA
	4	65	Biopsy	4.5	NA
	5	56	Biopsy	4.27	NA
	6	60	Biopsy	12.9	NA
PCa (N=10)	1	72	Biopsy	112	5+4=9
	2	69	Biopsy	56.4	4+4=8
	3	64	Biopsy	38.89	3+4=7
	4	61	Biopsy	33	4+4=8
	5	67	Biopsy	64	2+2=4
	6	77	Biopsy	8.5	3+3=6
	7	71	Biopsy	15	4+4=8
	8	63	Biopsy	7	5+4=9
	9	80	Biopsy	105	3+4=7
	10	56	Biopsy	17	5+5=10

IHC, immunohistochemistry; PSA, prostate-specific antigen; BPH, benign prostatic hyperplasia; PCa, prostate cancer; NA, not applicable.

https://dx.doi.org/10.21037/tau-24-415

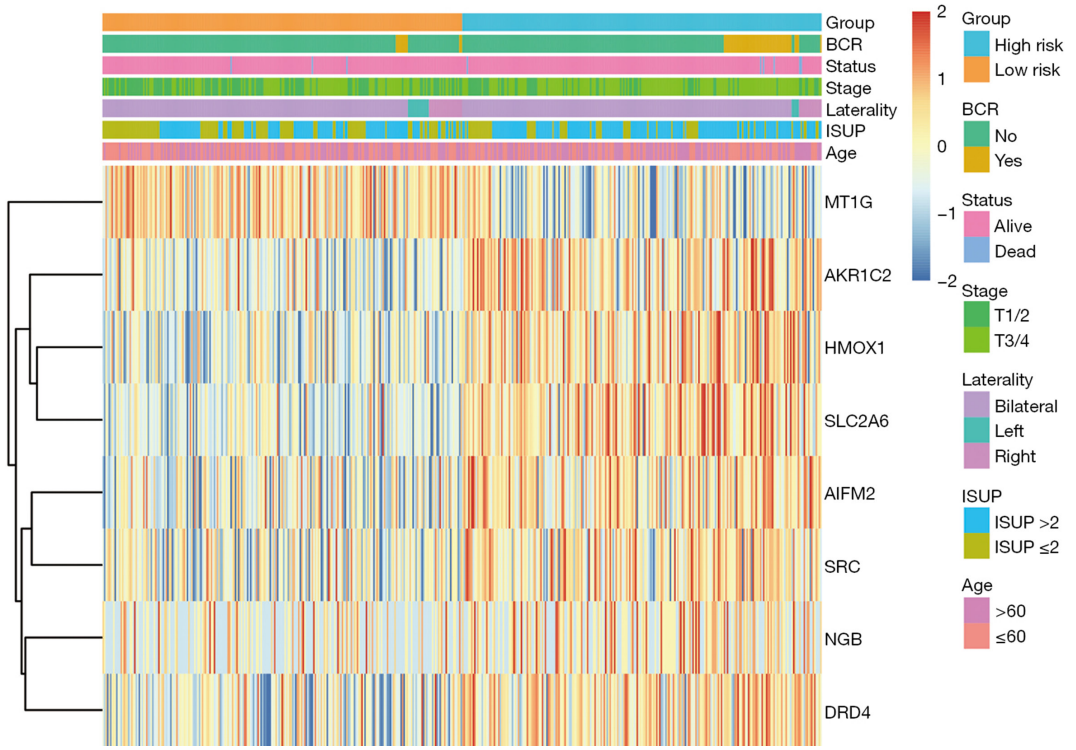

Figure S1 Heatmap for the FRG prognostic signature and clinicopathological manifestations. BCR, biochemical recurrence; ISUP, International Society of Urological Pathology; FRG, ferroptosis-related gene.

https://dx.doi.org/10.21037/tau-24-415

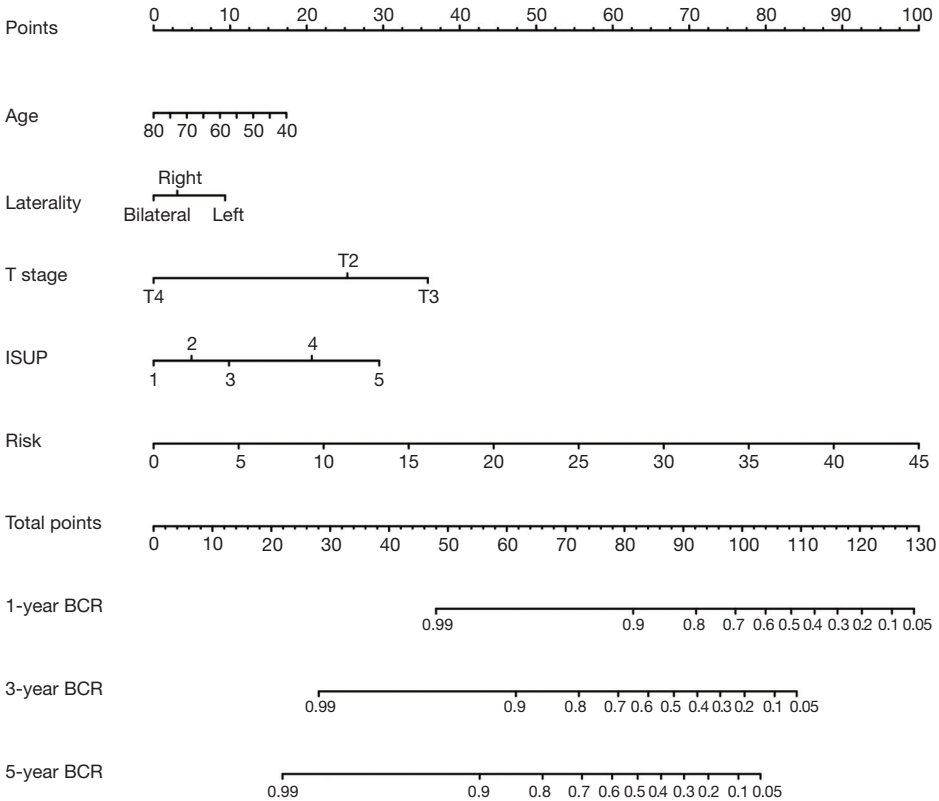

Figure S2 The nomogram combining clinicopathological variables and ferroptosis risk score was able to predict the 1-, 3-, and 5-year DFS of PCa patients. ISUP, International Society of Urological Pathology; BCR, biochemical recurrence; DFS, disease-free survival; PCa, prostate cancer.

https://dx.doi.org/10.21037/tau-24-415

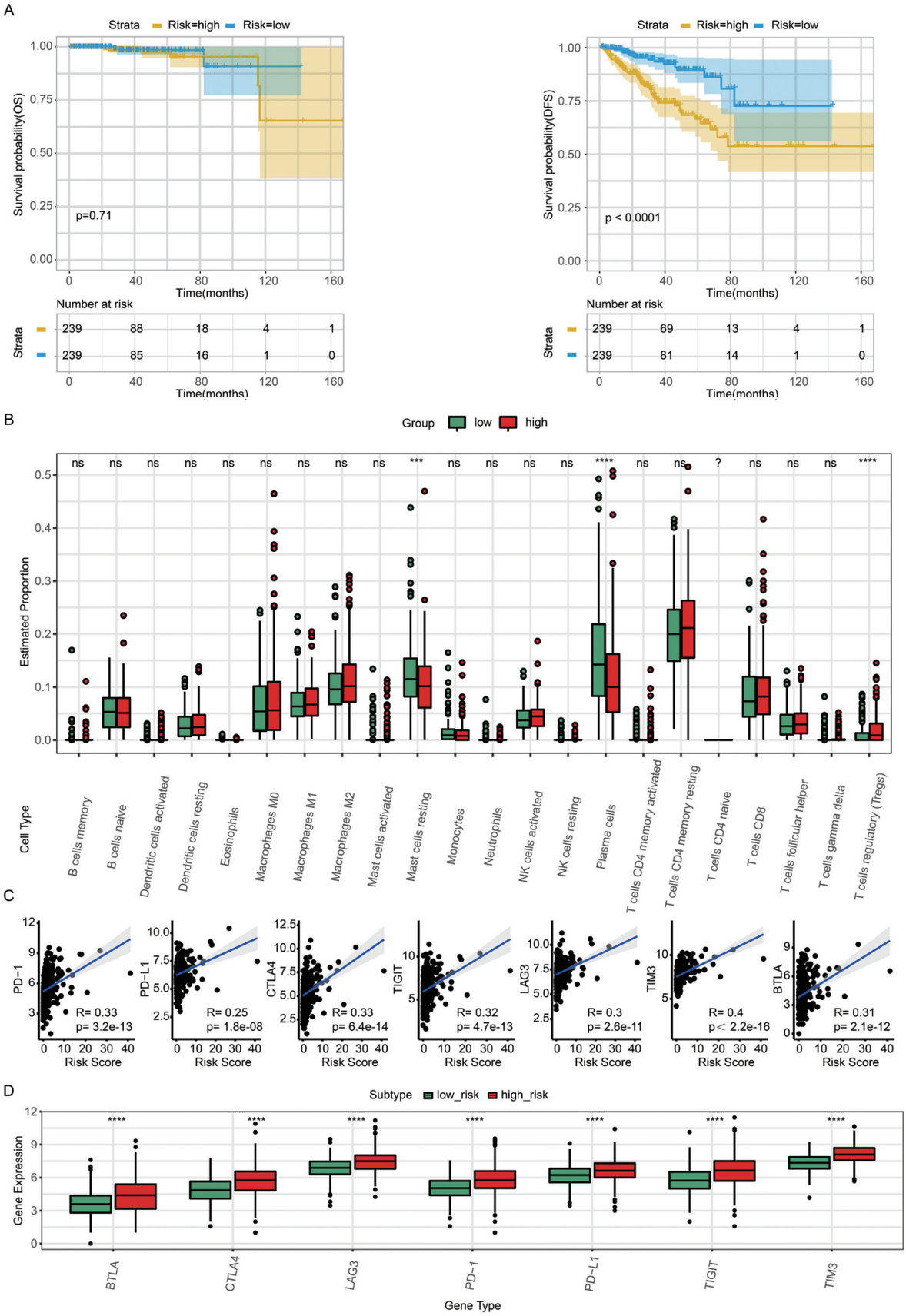

Figure S3 Gene expression profiles of immune cell populations. (A) Kaplan-Meier curves result of OS and DFS; (B) The proportion of immune infiltrating cells; (C) Correlation between immune checkpoint molecules and ferroptosis risk score; (D) The expression of immune checkpoint molecules. ***, P<0.001; ****, P<0.0001; ?, not be reliably quantified; ns, not significant. OS, overall survival; DFS, disease-free survival; PD-1, programmed cell death-1.

https://dx.doi.org/10.21037/tau-24-415