

**Supplementary Table 2. Median difference in immune score between tumor and matched benign prostatic samples from the 119 COH patients**

Gleason score	Age group	Number of patients	Median in tissue group		Median difference	95% CI of median difference	p-value *
			tumor	benign			
6	age > 70	18	39.53	31.57	7.96	-2.94–17.42	0.150
	age ≤ 50	19	37.95	26.10	11.85	3.99–20.39	0.004
7	age > 70	25	42.02	40.05	1.97	-7.72–11.51	0.692
	age ≤ 45	24	42.67	27.46	15.21	8.01–23.55	< 0.001
8	age > 70	18	51.38	53.48	-2.10	-13.49–5.18	0.602
	age ≤ 50	15	42.55	39.54	3.01	-6.62–14.27	0.596

\*The Dqcomhd function for paired samples in the WRS (Rallfun-v35) package<sup>9</sup> was used to test significance of median difference in immune score between tumors and matched benign prostatic samples. For paired samples, it uses the quantile estimator and bootstrapping to determine the confidence interval (CI) for median difference and the p-values (corrected for multiple testing).