

Differential but Concerted Expression of HSD17B2, HSD17B3, SHBG and SRD5A1 Testosterone Tetrad Modulate Therapy Response and Susceptibility to Disease Relapse in Patients with Prostate Cancer

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Table S1. Predictors effect size statistics.

	t-statistic	df	p-value	Effect size (Cohen's d)	95% Confidence Interval	
					Lower	Upper
HSD17B2	90.83	550	< 0.001	3.87	3.62	4.11
HSD17B3	163.80	550	< 0.001	6.98	6.55	7.40
SHBG	280.78	550	< 0.001	11.96	11.24	12.67
SRD5A1	646.45	550	< 0.001	27.54	25.90	29.16
Age at diagnosis	224.97	611	< 0.001	9.09	8.57	9.61
Days to first BCR	11.43	74	< 0.001	1.32	1.01	1.63
Days to new tumor event after initial treatment	12.43	63	< 0.001	1.55	1.19	1.92
OS_time	34.78	622	< 0.001	1.39	1.28	1.50
PSA value	2.64	552	0.008	0.11	0.03	0.20
BCR	8.74	533		0.38	0.29	0.47
Primary therapy outcome success	65.08	501	< 0.001	2.91	2.70	3.10
Gleason score	191.05	622	< 0.001	7.65	7.22	8.08
OS_time_5yrs	12.12	622	< 0.001	0.49	0.40	0.57

BCR, biochemical recurrence; OS, overall survival; PSA, prostate specific antigen; dF, degrees of freedom.

Table S2. Model Comparison - Predict_Recurrence_Generalized Linear Model.

Models	P(M)	P(M data)	BF _M	BF ₁₀	R ²
ENSG00000086696.9 + ENSG00000130948.8 + ENSG00000129214.13 + ENSG00000145545.10	0.010	0.515	110.524	1.000	1.000
ENSG00000086696.9 + ENSG00000130948.8 + ENSG00000129214.13 + ENSG00000145545.10 + psa_value	0.024	0.331	20.255	0.257	1.000
ENSG00000086696.9 + ENSG00000130948.8 + ENSG00000129214.13 + ENSG00000145545.10 + psa_value + age_at_diagnosis.diagnoses_yrs	0.143	0.094	0.622	0.012	1.000
ENSG00000086696.9 + ENSG00000130948.8 + ENSG00000129214.13 + ENSG00000145545.10 + age_at_diagnosis.diagnoses_yrs	0.024	0.060	2.628	0.047	1.000
Null model	0.143	0.000	0.000	0.000	0.000
ENSG00000145545.10 + psa_value + age_at_diagnosis.diagnoses_yrs	0.007	0.000	0.000	0.000	0.072
ENSG00000086696.9 + ENSG00000129214.13 + ENSG00000145545.10 + age_at_diagnosis.diagnoses_yrs	0.010	0.000	0.000	0.000	0.412
ENSG00000130948.8 + ENSG00000129214.13 + ENSG00000145545.10 + psa_value	0.010	0.000	0.000	0.000	0.913
psa_value + age_at_diagnosis.diagnoses_yrs	0.010	0.000	0.000	0.000	0.021
ENSG00000129214.13 + ENSG00000145545.10	0.010	0.000	0.000	0.000	0.318

Posterior Summaries of Coefficients - Predict_Recurrence_Generalized Linear Model.

Coefficient	P(incl)	P(excl)	P(incl data)	P(excl data)	BF _{inclusion}	Mean	SD	95% Credible Interval	
								Lower	Upper
Intercept	1.000	0.000	1.000	0.000	1.000	-6.333	1.261e-4	-6.333	-6.333
ENSG00000086696.9	0.500	0.500	1.000	0.000	∞	0.058	5.139e-5	0.058	0.058
ENSG00000130948.8	0.500	0.500	1.000	0.000	∞	0.222	7.494e-5	0.222	0.222
ENSG00000129214.13	0.500	0.500	1.000	0.000	∞	-0.358	1.271e-4	-0.358	-0.358
ENSG00000145545.10	0.500	0.500	1.000	0.000	∞	-0.213	2.293e-4	-0.214	-0.213
psa_value	0.500	0.500	0.425	0.575	0.738	-6.586e-6	9.411e-6	-2.613e-5	0.000
age_at_diagnosis.diagnoses_yrs	0.500	0.500	0.154	0.846	0.182	-7.503e-7	7.663e-6	-1.961e-5	1.399e-5

P(M), prior probabilities of the model; P(M|data), Posterior probability of the model based on the data; BF_M, Bayes factor (likelihood odds) when compared against all other models; BF₁₀, Bayes factor (likelihood odds) when compared against the null model; R², coefficient of determination; P(Incl), prior probabilities of inclusion of the effect in all the models; P(excl), prior probabilities of exclusion of the effect in all the models; P(Incl|data), sum of the posterior probabilities of all models that include the effect; BF_{inclusion}, prior to posterior odds of inclusion of a particular effect in all the considered models. Values below 1.0 are against the effect on the dependent variable. Values above 1.0 are for the effect on the dependent variable; SD, standard deviation.