

**S6 Table: Tukey HSD test on candidate genes from males, reproducing and non-reproducing females:** Posthoc test following significant results from two-way ANCOVA. P-values marked in bold are in agreement with the results from the univariate analysis.

**MHC II b**

		Male				Reproduction			
		diff	lower	upper	p value	diff	lower	upper	p value
Male									
Reproduction		8.01	-12.35	-3.67	<b>0.0004</b>				
Control		4.80	0.09	9.51	<b>0.0452</b>	3.21	-7.55	1.13	0.1721

**II10**

		Male				Reproduction			
		diff	lower	upper	p value	diff	lower	upper	p value
Male									
Reproduction		1.45	-2.43	-0.48	<b>0.0031</b>				
Control		0.78	-1.48	-0.07	<b>0.0288</b>	0.18	-0.88	0.52	0.7920

**CD8**

		Male				Reproduction			
		diff	lower	upper	p value	diff	lower	upper	p value
Male									
Reproduction		0.78	0.04	1.53	<b>0.0373</b>				
Control		0.08	-0.73	0.88	0.9666	0.86	0.12	1.61	<b>0.0212</b>

**calreticulin 3**

		Male				Reproduction			
		diff	lower	upper	p value	diff	lower	upper	p value
Male									
Reproduction		5.16	-7.97	-2.35	<b>0.0005</b>				
Control		3.11	0.07	6.16	<b>0.0446</b>	2.05	-4.86	0.76	0.1800

**Serum Amyloid**

		Male				Reproduction			
		diff	lower	upper	p value	diff	lower	upper	p value
Male									
Reproduction		3.25	0.05	6.45	<b>0.0458</b>				
Control		0.57	-4.03	2.90	0.9104	2.69	-0.51	5.89	0.1093

**thrombin receptor**

		Male				Reproduction			
		diff	lower	upper	p value	diff	lower	upper	p value
Male									
Reproduction		1.97	-3.72	-0.22	<b>0.0256</b>				
Control		1.03	-0.86	2.93	0.3674	0.94	-2.68	0.81	0.3804

**trypsin**

		Male				Reproduction			
		diff	lower	upper	p value	diff	lower	upper	p value
Male									
Reproduction		3.00	0.12	5.87	<b>0.0405</b>				
Control		0.32	-2.80	3.44	0.9628	3.32	0.44	6.20	<b>0.0223</b>

**latescidin 2**

		Male				Reproduction			
		diff	lower	upper	p value	diff	lower	upper	p value
Male									
Reproduction		3.86	0.63	7.08	<b>0.0179</b>				
Control		0.12	-3.38	3.62	0.9958	3.98	0.75	7.20	<b>0.0146</b>

**hepcidine**

		Male				Reproduction			
		diff	lower	upper	p value	diff	lower	upper	p value
Male									
Reproduction		3.93	0.82	7.04	<b>0.0123</b>				
Control		0.48	-3.86	2.90	0.9312	3.45	0.34	6.57	<b>0.0284</b>

**HSP70**

		Male				Reproduction			
		diff	lower	upper	p value	diff	lower	upper	p value
Male									
Reproduction		0.81	0.17	1.44	<b>0.0116</b>				
Control		0.71	-1.40	-0.02	<b>0.0418</b>	0.10	-0.54	0.73	0.9222

**elongation factor**

		Male				Reproduction			
		diff	lower	upper	p value	diff	lower	upper	p value
Male									
Reproduction		5.49	-10.28	-0.70	<b>0.0231</b>				
Control		2.16	-3.03	7.36	0.5514	3.33	-8.12	1.46	0.2074

**opsin**

		Male				Reproduction			
		diff	lower	upper	p value	diff	lower	upper	p value
Male									
Reproduction		3.64	0.89	6.38	<b>0.0087</b>				
Control		0.37	-2.61	3.35	0.9470	4.01	1.26	6.75	<b>0.0041</b>

**myogenic regulation**

		Male				Reproduction			
		diff	lower	upper	p value	diff	lower	upper	p value
Male									
Reproduction		3.41	1.51	5.30	<b>0.0006</b>				
Control		0.31	-2.37	1.74	0.9202	3.09	1.20	4.99	<b>0.0015</b>

**methyltransferase**

		Male				Reproduction			
		diff	lower	upper	p value	diff	lower	upper	p value
Male									
Reproduction		0.57	0.13	1.02	<b>0.0101</b>				
Control		0.34	-0.82	0.14	0.1917	0.34	-0.82	0.14	0.1917

**androgen receptor B**

		Male				Reproduction			
		diff	lower	upper	p value	diff	lower	upper	p value
Male									
Reproduction		0.83	0.23	1.43	<b>0.0061</b>				
Control		0.03	-0.62	0.68	0.9917	0.86	0.26	1.46	<b>0.0046</b>