

Supplementary Table 4. Associations of experimental pain with the number of copies of the *GCHI* pain protective haplotype

Cohort	Diplotype	Thermal z-score	SEM	Mechanical z-score	SEM	Ischemic z-score	SEM
UF	0/0 (n = 240)	-0.09	0.11	-0.13	0.11	-0.02	0.11
	X/0 (n = 89)	0.19	0.2	0.27	0.2	-0.05	0.17
	X/X (n = 6)	-1.13	0.28	-1.47	1.1	-0.7	0.29
	<i>P</i> value	0.14		0.028		0.57	
UNC	0/0 (n = 144)	0.42	0.43	0.20	0.30	0.06	0.14
	X/0 (n = 64)	-0.85	0.65	-0.20	0.45	-0.17	0.22
	X/X (n = 4)	-1.32	2.58	-4.16	1.79	0.36	0.87
	<i>P</i> value	0.23		0.0508		0.62	
Combined	0/0 (n = 384)	0.15	0.22	-0.004	0.13	0.02	0.09
	X/0 (n = 153)	-0.33	0.37	0.07	0.24	-0.09	0.13
	X/X (n = 10)	-1.41	1.18	-2.54	0.89	-0.25	0.28
	<i>P</i> value	0.25		0.006		0.58	

Supplementary Table 4. Associations of heat, mechanical and ischemic pain with the number of copies of the *GCHI* pain protective haplotype in two cohorts of healthy volunteers. One cohort was examined at the University of North Carolina at Chapel Hill (UNC) and the second cohort was examined at the University of Florida (UF). Prior to analyses, the pain protective haplotype identified in the lumbar root pain study was specified as the genotype for analysis.

The *UNC Cohort* consisted of healthy women (mean age 22.8). Pressure pain thresholds were assessed over the temporalis and masseter muscles, the temporomandibular joint and the ventral surface of the wrists. Measures of heat pain threshold and tolerance (°C) were averaged across three anatomical test sites, arm, cheek and foot. Ischemic pain threshold and tolerance (seconds) were assessed with the submaximal effort tourniquet procedure.

The *UF Cohort* consisted of healthy female and healthy male volunteers (mean age 24.0). Heat pain threshold and tolerance (°C) were assessed on the volar forearm. Pressure pain threshold was assessed at three sites, the masseter and trapezius muscle, and dorsal forearm over the ulna. Ischemic pain threshold and tolerance (seconds) were assessed via the submaximal effort tourniquet procedure.

In order to combine groups each individual pain measure was standardized to unit normal deviates (*z*-scores) with a mean of zero and standard deviation of one. Subjects who did not carry the pain protective haplotype were grouped as 0/0, subjects carrying one copy of the haplotype were grouped as X/0, and subjects carrying two copies were grouped as X/X. Differences between the diplotype groups were determined using one way ANOVA followed by a Bonferroni adjustment for post-hoc testing (*P* at 0.05).