

1 Table S3: The location of the top 5 most significant QTLs associated with each of the skeletal traits in the meta-analysis.

Trait	Chr	Start	End	No of suggestive and significant SNPs	Most significant SNP	P-Value	Candidate genes within this QTL
Wither Height	5	105280734	106302598	28	105783088 ^a	4.00x10 ⁻⁷	KCNA1, NDUFA9, FGF6, FGF23, TIGAR
	6	32458499	35344463	590	33574963 ^a	1.60x10 ⁻⁸	CCSER1
	6	36934944	40367479	233	38692833 ^a	1.39x10 ⁻¹⁰	PPM1K, ABCG2, PKD2, SPP1, MEPE, LAP3, NCAPG, LCORL
	15	16857667	17866073	3	17357667 ^a	5.08x10 ⁻⁷	ALKBH8, RAB39A
	22	1921471	3018467	32	2517667 ^a	4.87x10 ⁻⁷	CMC1
Chest Width	1	78722748	79819964	9	79281613 ^b	1.78x10 ⁻⁷	TPRG1, LPP
	2	84546041	85547642	17	85047257 ^a	6.63x10 ⁻⁷	SLC39A10, DNAH7, STK17B, HECW2
	8	111704513	112713771	5	112207970 ^b	1.49x10 ⁻⁶	CDK5RAP2, FBXW2, TRAF1
	16	34222491	35399155	7	34722616 ^b	1.01x10 ⁻⁶	AKT3, SDCCAG8, CEP170
	19	60882962	61882988	3	61382974 ^a	3.64x10 ⁻⁷	KCNJ2, KCNJ16, MAP2K6, ABCA5
Chest Depth	1	116367840	117409053	15	116884742 ^c	7.63x10 ⁻⁷	MBNL1, AADAC
	5	3711874	4919423	75	4314400 ^a	1.44x10 ⁻⁷	CAPS2
	5	80773564	81859095	13	81273564 ^a	1.29x10 ⁻⁹	CCDC91
	11	77828096	78855720	2	78355720 ^a	5.74x10 ⁻⁷	GDF7, RHOB, SDC1
	13	67722025	68774518	3	68222752 ^b	8.81x10 ⁻⁹	KIAA1755, ADIG, DHX35
Back Length	2	1	9238659	969	5535691 ^a	1.69x10 ⁻¹⁹	ASNSD1, ARHGEF4, MYO7B, NABI, MFS6, MSTN, PMS1, ORMDL1, COL3A1, COL5A2, ANKAR, SLC40A1
	6	32966339	34249299	192	33471768 ^d	1.66x10 ⁻⁸	
	6	36399608	40835172	107	38672441 ^c	4.04x10 ⁻¹⁰	PPM1K, ABCG2, PKD2, SPP1, MEPE, LAP3, NCAPG, LCORL
	12	41360854	42774040	8	41860854 ^a	3.67x10 ⁻⁷	
	13	75166652	76244228	3	75166652 ^b	4.86x10 ⁻⁷	DNTTI1, TNNC2, PLTP, NCOA5, CDH22, OCSTAMP
Hip Width	6	37042897	40544352	36	38648218 ^b	2.58x10 ⁻⁷	PPM1K, ABCG2, PKD2, SPP1, MEPE, LAP3, NCAPG, LCORL
	11	74549091	75686706	7	75078608 ^b	3.54x10 ⁻⁷	NCOA1, ITS1, FKBP1B, ATAD2B, KLHL29
	15	7741333	8881109	3	8381102 ^a	2.76x10 ⁻⁷	ARHGAP42
	18	9307588	10781382	4	10281382 ^a	3.42x10 ⁻⁷	CDH13, HSBP1, MBTPS1, DNAAF1, TAF1C, ATP2C2, COTL1
	23	6956952	7970369	3	7456952 ^a	5.27x10 ⁻⁷	GCLC, DSB, TAP2, PSMB8, TAP1, PSMB9, COL11A2, HSD17B8, RING1, RPS18, DAXX, BAK1

2 Superscript denotes SNP classification: ^aintergenic, ^bintron, ^cupstream gene variant, ^ddownstream gene variant

