













Table 1 Location and magnitud	de of effect f	for major and m	inor pelvic reduction	QTL	
Trait	LG	Marker	Map position (cM)	LOD log likelihood ratio of linkage	PVE (%) phenotyp variance explained
Complete versus reduced pelvis	7	Pitx1	82.9	72.6	NA
	7	Stn82	72.6	36.9	NA
Pelvic spine length	7	Pitx1	82.9	82.8	65.3
	7	Stn82	72.6	45.5	43.7
	2	Stn21	19.1	4.9	7.6
	4	Gac4174	32.4	4.9	5.8
Pelvic girdle length	7	Pitx1	82.9	50.0	46.8
	7	Stn82	72.6	25.6	27.8
	1	Stn7	45.1	4.6	5.6
	2	Stn21	19.1	7.6	11.1
	4	Gac4174	32.4	4.7	5.6
Ascending branch height	7	Pitx1	82.9	45.1	44.5
	7	Stn82	72.6	19.8	22.2
	10	Stn119	0	5.3	6.6
Asymmetry	7	Pitx1	82.9	28.0	31.5
	7	Stn82	72.6	11.2	13.5









Site-specific Regulatory Changes of Pitx1 Expression



Hypothesis: It is the hindlimb enhancer that is eliminated



Elimination of Pitx1 altogether is lethal, however, elimination of the Hindlimb enhancer is a viable regulatory mutation.

Also shows that left-right asymmetry is a characteristic feature of Pitx1-linked pelvic reduction in mice and Paxton benthic fish.





8