

## **Supplementary information**

### **Intermittent Hypoxia Inhibits Mandibular Cartilage Growth with Reduced TGF- $\beta$ and SOX9 Expressions in Neonatal Rats**

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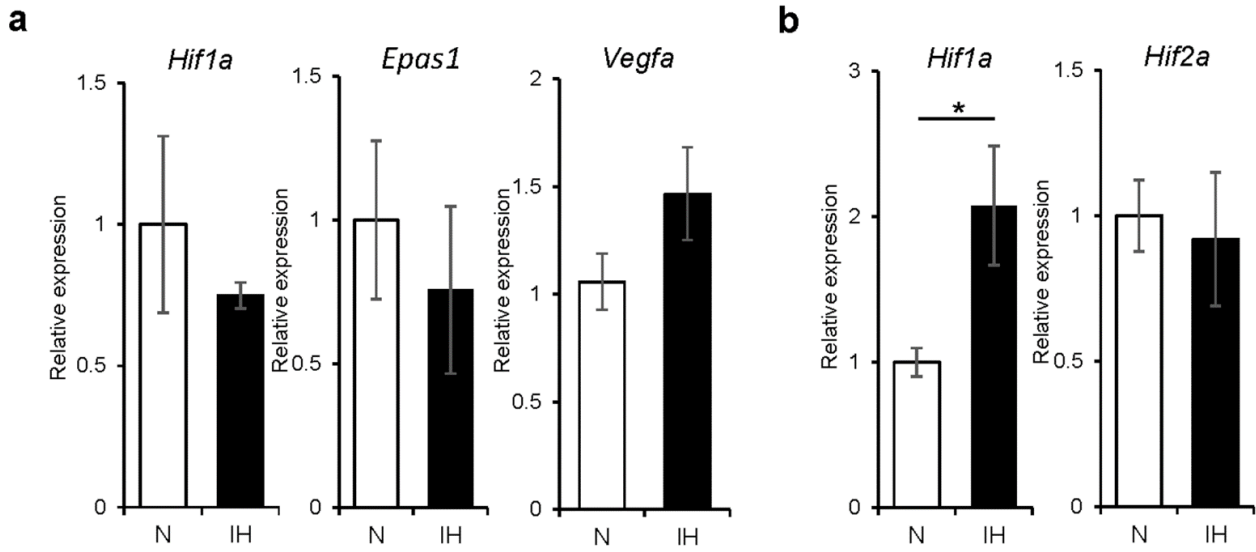
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**Supplementary Table S1a. Definitions of landmarks in radiographic images**

Lateral view landmarks	N	The most anterior point on the nasal bone
	E	The intersection of the frontal bone and floor of anterior cranial fossa
	Po	The most posterior and superior points on the skull
	Co	The most posterior and superior points on the mandibular condyle
	So	The intersection of the most anterior tympanic bulla and the superior border of the sphenoid corpus
	Ba	The most posterior and inferior points on the occipital condyle
	Go	The most posterior point on the mandibular ramus
	Gn	The most inferior point on the ramus that lies on a perpendicular bisector of the line Go-Mn
	Mn	The most concave portion of the concavity on the inferior border of the mandibular corpus
	Me	The most inferior and anterior points of the lower border of the mandible
	Mu	The junction of the alveolar bone and the mesial surface of the first maxillary molar
	Mi	The junction of the alveolar bone and the mesial surface of the first mandibular molar
LI	The most anterior and superior points on the alveolar bone of the mandibular incisor	
Dorsoventral view landmarks	Go1, Go2	The points on the angle of the mandible that produce the widest width; Go1 is the point on the left and Go2 is the point on the right
	C1, C2	The points on the cranium that produce the widest cranial width; C1 is the point on the left and C2 is the point on the right
	P1, P2	The most anterior and medial points within the temporal fossae that produce the narrowest palatal width; P1 is the point on the left and P2 is the point on the right

**Supplementary Table S1b. Cephalometric measurements**

Neurocranium	Po-N	Total skull length
	Po-E	Cranial vault length
	Ba-E	Total cranial base length
	So-E	Anterior cranial base length
	Ba-So	Posterior cranial base length
	Po-Ba	Posterior neurocranium height
Viscerocranium	E-N	Nasal length
	E-Mu	Viscerocranium height
Mandible	Co-LI	Total mandibular length
	Co-Me	Length from condylar head to Me
	Co-Gn	Ramus height
	Go-Mn	Posterior corpus length
	Mi-LI	Anterior corpus length
Transverse measurements	Go1-Go2	Bigonial width
	C1-C2	Maximum cranial width
	P1-P2	Palatal width



**Supplementary Figure. S1. Gene expression levels of HIFs and VEGF in mandibular condyle and tibia.** Relative gene expression levels of HIF-1 $\alpha$  (*Hif1a*), HIF-2 $\alpha$  (*Epas1*) and VEGF (*Vegfa*) were compared by TaqMan Gene Expression Assays (*Hif1a*, Rn01472831\_m1; *Epas1*; Rn00576515\_m1; *VEGF*; Rn01511602\_m1; *Hprt1* (internalcontrol), Rn01527840\_m1). Relative mRNA expression levels of *Hif1a*, *Epas1* and *Vegfa* in the mandibular condylar cartilage (a) and relative mRNA expression levels of *Hif1a* and *Epas1* in the tibial cartilage (b). Data are presented as mean  $\pm$  SEM for each group. \*:  $p < 0.05$ .