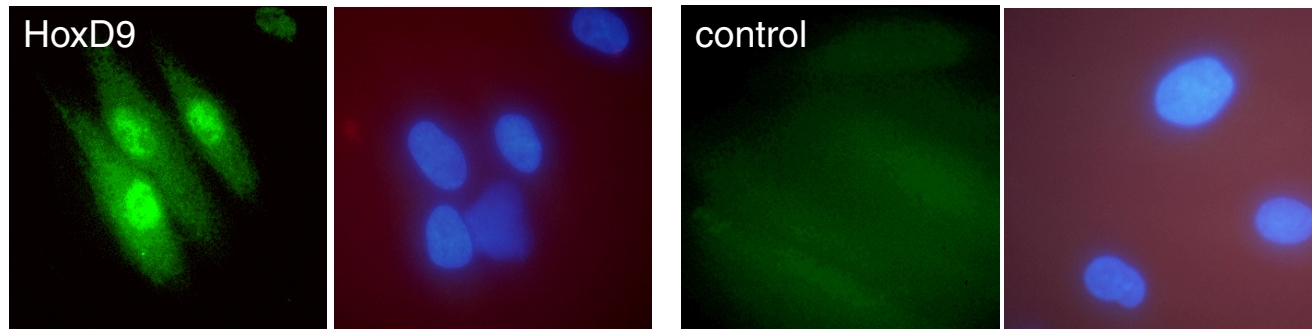


Supp Fig. 8

A. Colinearity of Hox gene expression

Gum									
Fetal lung				B7	B6	B5	A4	B3	B2
Arm		A10 D9			C5	A4 D4			
Abdomen		A10	B7		B5 C5			B2	
Fetal buttock/thigh		A10	B7	B6	B5 C5	D4	B3	B2	
Toe	A13	A10							
Foreskin	A13	A10							

B



Supplemental Figure 8. Colinearity and Hox protein expression.

(A) Colinearity of Hox gene expression. Hox genes that are reproducibly up regulated in Fig 4B for fibroblasts from different sites are shown. Hox genes are named by their location on the locus from the 3' to the 5' end; thus HoxA1 occupies the 3' position and HoxA13 occupies the 5' end. Comparison of the Hox genes expressed in fibroblasts and their sites of origin showed that the more posterior body sites expressed the 5' Hox genes—a property termed the colinearity rule. Gum fibroblasts, which is from the most anterior site in this comparison, had no apparent up regulation of Hox genes. This may be explained by the nested pattern of Hox expression, where more posterior sites express all of the 3' Hox genes plus additional 5' genes. (B) Expression of Hox protein. Immunofluorescence microscopy with anti-HoxD9 in arm fibroblasts showed that HoxD9 is uniformly expressed and predominantly localized in the nucleus. A splice variant of HoxD9 that is cytoplasmic may account for cytoplasmic staining. DAPI counterstain of nuclei and control experiment omitting the primary antibody are also shown.