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pdf, in mice, suggests an important role of IGF2 in bone development. Additionally, IGF2 knock-out animals have low birth weight and their weight significantly decreases with age (Liu et al., [@B37]). IGF2 is expressed in most developing organs, including bone and heart. In the lung, IGF2 can induce the differentiation of lung fibroblast progenitors into epithelial cells (Ma et al., [@B40]), suggesting that this gene might be involved in the development of bone and lung (Vigelsø et al., [@B73]). Finally, the IGF2 protein is expressed in human tissues such as bone, lung, and placenta. Expression of IGF2 is reduced in several tumors, including gastric, breast and prostate cancers (Strutz et al., [@B66]; Pritchard et al., [@B54]; Wang et al., [@B75]). Interestingly, the spatial arrangement of the embryonic bone and lung is very similar. A well-established osteochondral model of bone development in chick embryos described in the early 1960s suggested that the mesenchymal condensation of the limb bud represents the site of differentiation of cartilage and bone progenitors. Thus, the results of several studies suggest that there is an important role for IGF2 in this process and might be involved in embryonic bone and lung development. Human studies ---------- Most of the studies on the role of IGF2 in human skeletal development were performed using MRI and/or histological analyses. Radiological studies have focused on the growth and morphological changes of the long bones in relation to the age and gender of the patients. Some studies revealed an important role of the IGF2 gene in the regulation of longitudinal growth of the long bones, suggesting that this growth factor might be involved in limb length regulation during childhood (Chen et al., [@B11]). Nevertheless, it was also reported that IGF2 was responsible for the growth of the arms and not of the legs (Li et al., [@B34]). Studies performed in syndromic patients with IGF2 mutations revealed a number of structural abnormalities in the skeleton, especially in the growth plate, suggesting that IGF2 could be involved in the growth of this tissue (de Beauvais et al., [@B16]). Furthermore, studies performed on the growth plate of syndromic patients with IGF2 mutations revealed that chondrocytes were misshaped and that the growth plate was 82157476af