## **Description of Additional Supplementary Files**

File name: Supplementary Data 1

Description: ToppGene and DAVID analysis of *Nr6a1*<sup>-/-</sup> embryos compared to controls.

File name: Supplementary Data 2

Description: Differentially expressed genes (FDR<0.05) uniquely identified in Cdx2P:Nr6a1 tailbuds, uniquely identified in  $Gdf11^{-/-}$  tailbuds, or common to both Cdx2P:Nr6a1 and  $Gdf11^{-/-}$  tailbuds.