File Name: Supplementary Movie 1

Description: Wildtype E13.5 mouse embryo, caudal region, stained for Sox2 (red),

T/Brachyury (T;Bra; green) and Foxa2 (blue) proteins. 3-Disco clearing,

Ultramicroscope II imaging.

File Name: Supplementary Movie 2

Description: Gdf11-/-; Hoxd12<sup>OE</sup>\_1 embryo, caudal region, stained for Sox2 (red),

T/Brachyury (T;Bra; green) and Foxa2 (blue) proteins. 3-Disco clearing,

Ultramicroscope II imaging.

File Name: Supplementary Movie 3

Description: Gdf11-/-; Hoxd12<sup>OE</sup>\_2 embryo, caudal region, stained for Sox2 (red),

T/Brachyury (T;Bra; green) and Foxa2 (blue) proteins. 3-Disco clearing,

Ultramicroscope II imaging.