

Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: Time-lapse showing actomyosin network recoil after IR fs laser ablation and eventual network recovery. Manual refocusing was performed at time point 3:41 to follow the network moving inward. Scale bar 10 μm .

File Name: Supplementary Movie 2

Description: Time-lapse showing mesoderm internalization failure as a consequence of periodic ventral tension inhibition. The ventral actomyosin network is periodically ablated using a IR fs laser over a grid patterned ROI. Scale bar 10 μm .

File Name: Supplementary Movie 3

Description: 3D rendering of segmented apical surfaces of ventral cells. Scale bar 50 μm .

File Name: Supplementary Movie 4

Description: Time-lapse showing digital sections along the sagittal plane (top) and along different cross-section planes at different AP positions in a wild-type embryo. Scale bar 100 μm .

File Name: Supplementary Movie 5

Description: Time-lapse showing different cross-section planes at different AP positions in a wild-type embryo and eye guide highlighting furrow apex position. Scale bar 100 μm .

File Name: Supplementary Movie 6

Description: Time-lapse showing digital sections along the sagittal plane (top) and along different cross-section planes at different AP positions in a slam-dunk- embryo. Scale bar 100 μm .

File Name: Supplementary Movie 7

Description: Time-lapse showing ventral tissue flattening along a line connecting cauterised loci. Scale bar 100 μm .