Movie Legends

Movie 4.1. Membrane ingression during cellularisation. *Time lapse of membrane ingression between nuclei in an nGFP transgenic embryo also labelled with GAP43-YFP. Movie shows optical sections either at the level of the nuclei. Timelapse starts approximately 20 minutes after nuclei reach the surface, and is timed against that point.*

Movie 4.2. Membrane behaviour during protocell division. *Time lapse of orthogonal view of membrane ingression during final uniform blastoderm division in a GAP43-YFP labelled embryo, timed from just before division begins.*

Movie 4.3. Completion of cellularisation. *(A-C) Time lapse of blastoderm cellularisation during 13th interphase of a GAP43-YFP labelled embryo timed against basal cell closure. (A) Subapical optical section showing straightening/tightening of membrane during blastoderm cellularization. (B) Optical section at basal parts of proto-cells showing membrane constriction and eventual basal cell closure. (C) Orthogonal view showing constriction basal membranes during cellularisation.*

Movie 4.4. Inx7a RNAi cellularisation phenotype. *Time lapse of cellularisation defects in a GAP43-YFP labelled embryo following inx7a pRNAi, timed against maximum membrane ingression depth. Movie shows a subapical optical section.*

Movie 4.5. Membrane retraction caused by Inx7a RNAi. *Time lapse of membrane retraction in a GAP43-YFP labelled embryo following inx7a pRNAi. Movie shows subapical optical section (left panel) or as orthogonal view (right panel). Orthogonal views are maximum intensity projections of several microns in the y axis.*

Movie 4.6. Cleavage of the yolk. *Timelapse of optical section at the surface of the yolk from DIC imaging, timed against the uniform blastoderm stage. Anterior to the left and dorsal to the top.*

Movie 4.7. Effects of yolk cleavage on the germband. *Time lapse recordings of GAP43-YFP-labelled wildtype embryo (top panel) or Tc-srp^{RNAi} embryo (bottom panel)*

during germband elongation. Movies start at the point of serosa window closure. Movies show average projections that were altered by uniformly enhancing brightness/contrast to show the germband and the membrane-bound yolk spheres. Anterior to the left and dorsal to the top.

Movie 5.1. Timelapse wild-type condensation (ventrolateral view). *Fluorescence time-lapse recording of a Tribolium wild-type embryo labelled with GAP43-YFP (also shown in Fig. 5.1 (A-E)). In each time-point, the movie shows an average intensity projection. The position of tracked cells is indicated with yellow dots; cell tracks are not included to allow visualization of the embryo. Ventrolateral view, anterior is towards the left.*

Movie 5.2. Timelapse wild-type condensation (lateral view). *Fluorescence time-lapse recording of a Tribolium wild-type embryo labelled with GAP43-YFP (also shown in Fig. 5.1(F-J)). In each time-point, the movie shows an average intensity projection. The position of tracked serosa cells is indicated with yellow dots; cell tracks are not included to allow visualization of the embryo. Lateral view, anterior is towards the left and dorsal towards the top.*

Movie 5.3. Timelapse of condensation after Tc-cad^{RNAi} (ventrolateral view). *Fluorescence time-lapse recording of a Tribolium Tc-cad^{RNAi} embryo labelled with GAP43-YFP (also shown in Fig. 5.1(K-O)). In each time-point, the movie shows an average intensity projection. The position of tracked cells is indicated with yellow dots; cell tracks are not included to allow visualization of the embryo. Ventrolateral view, anterior is towards the left.*

Movie 5.4. Timelapse of condensation after Tc-cad^{RNAi} (lateral view). *Fluorescence time-lapse recording of a Tribolium Tc-cad^{RNAi} embryo labelled with GAP43-YFP (also shown in Fig. 5.1(P-T)). At each time-point, the movie shows an average intensity projection. The position of tracked serosa cells is indicated with yellow dots; cell tracks are not included to allow visualization of the embryo. Lateral view, anterior is towards the left and dorsal to the top.*

Movie 5.5. Time lapse of germband extension in wild-type and Tc-cad^{RNAi} embryos. *Combination of two fluorescence time-lapse recordings of Tribolium wild-type (top) and Tc-*

cadRNAi (bottom) embryos labelled with GAP43-YFP also shown in Fig. 5.2. At each time-point, the movie shows average intensity projections with enhanced brightness/contrast to show the germbands and the membrane-bound yolk spheres. Lateral views, anterior is towards the left and dorsal towards the top.

Movie 5.6. Confocal imaging of the 13th round of cell divisions during Tribolium blastoderm differentiation. *Fluorescence timelapse recording of a Tribolium embryo labelled with H2B-RFP also shown in Fig. 5.3 (A-A'''). In each time-point, the movie shows an average intensity projection. Lateral view, anterior is towards the left and dorsal towards the top.*

Movie 5.7. DIC/confocal imaging of Tribolium germband condensation and elongation relative to yolksac dynamics. *Combination of differential interference contrast microscopy with fluorescence confocal microscopy for time-lapse recording of a Tribolium embryo labelled with H2B-RFP (also shown in Fig. 5.10). In each time-point, the movie shows the DIC image of the embryo (left panel), as well as the DIC image overlaid with the corresponding H2B-RFP fluorescence signal in blue (right panel). The dot indicates the position of the leading edge of the posterior yolk-fold. The white track marks the early ventral extension of the yolk-fold and the grey track marks its dorsal retraction up to the corresponding time-point. Lateral view, anterior is towards the left and dorsal to the top.*

Movie 5.8. Dynamics of the yolkfold in wild-type and Tc-srp^{RNAi} embryos. *Time lapse recordings of GAP43-YFP-labeled wildtype embryo (top panel) or Tc-srp^{RNAi} embryo (bottom panel) during stages 4-5. Movies are timed against onset of stage 1. Anterior to the left and dorsal to the top.*