



Supplementary Figure 6:

Time lapse movies of stage 12.5 dorsal explants were recorded to evaluate cellular behaviour using mGFP to visualise cell membranes. A single image from each movie is shown together with a drawing of the outline of cells. Arrows indicated the long axis of bipolar cells.

A, B: In wild-type explants, all cells of the involuting mesoderm showed a bipolar form with polarisation along the mediolateral axis.

C, D: XPAPC-MO injected explants showed small groups of cells with identical polarisation axis but the overall tissue polarity was randomised and some cells failed to reach the typical bipolar shape.

Cells in wild type (E) explants showed dorsally directed migration paths with little or no change of direction. In contrast in XPAPC-MO injected (F) explants cells showed multiple directions of migration. The calculated total and net dorsal speeds (G) of wild type (grey bars) and XPAPC depleted (black bars) further confirmed these observations.