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SUPPLEMENTARY MATERIAL

corresponding to:

**Epithelial cells division in the *Xenopus laevis* embryo
during gastrulation**

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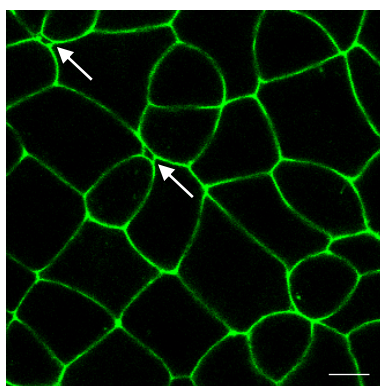
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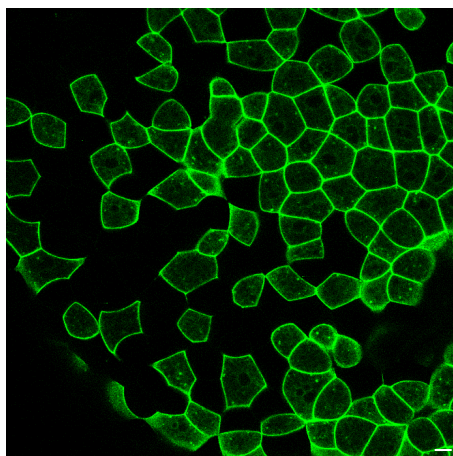
Sup. Movie S1. The gap formed between two daughter cells during cytokinesis is transient. *Time-lapse imaging of GFP-GPI during epithelial cell cytokinesis. A single confocal plane zoomed on the cleavage site is presented. It shows that the gap between the two daughter cells is transient and that plasma membranes are highly fluctuating.*

Sup. Movie S2. The inverted teardrop progresses together with the cleavage furrow (orthogonal projection). *Time-lapse imaging of GFP-GPI during epithelial cell cytokinesis (related to Fig. 2). Orthogonal projection along the daughter cells axis shows that the inverted teardrop progresses with the cleavage furrow.*

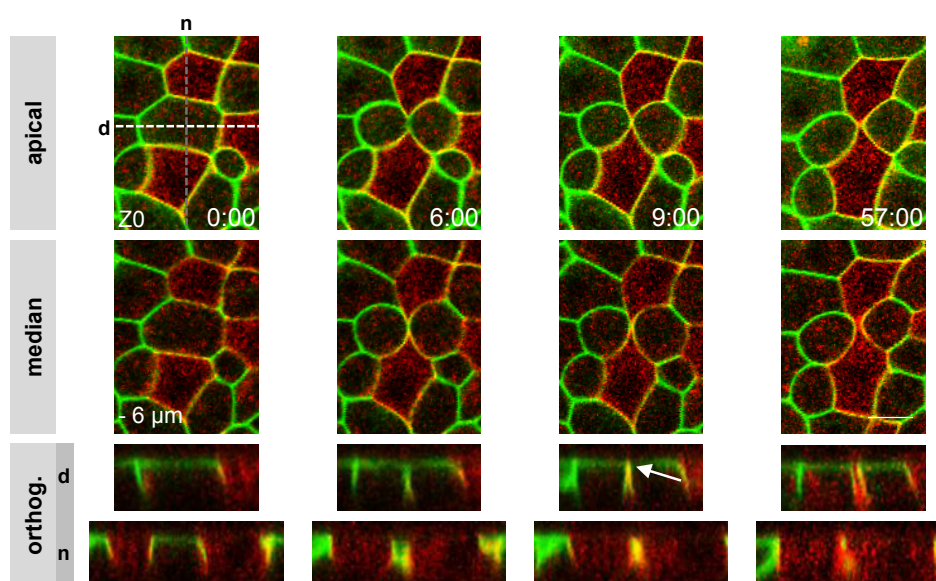
Sup. Movie S3. Intercalation of neighboring cells during cytokinesis is stable over time. *Time-lapse imaging of GFP-GPI and RFP-GPI expressing embryo showing neighboring cells which intercalate between the two daughter cells during epithelial cells cytokinesis (related to Fig. 3). One confocal plane is shown (merge of green and red). The contacts between neighboring cells are stable during several hours.*



Supplementary Fig. S1. The gap is specific to dividing cells in living cell embryos. *A wide-field of GFP-GPI expressing epithelial cells in gastrula is shown. White arrows point on the gap between the two daughter cells surrounded by interphase cells. Such a gap is observed only in cytokinetic cells, it is not detected between interphase cells.*



Supplementary Fig. S2. At the clone periphery, some cells are isolated from the main cell group. *A wide-field of GFP-GPI expressing gastrula showing labelled green cells separated from the main GFP-GPI expressing cell group by unlabeled cells (black).*



Supplementary Fig. S3. Neighboring cells intercalate between the two daughter cells during cytokinesis Live-imaging of GFP-GPI and RFP-GPI (merge of green and red are shown) expressing embryo showing neighboring cells which intercalate between the two daughter cells during cytokinesis. Two confocal planes are shown. Orthogonal projections along the daughter cell axis (d, white dashed lines) and the neighboring cells axis (n, grey dashed line) are shown. The white arrow on the orthogonal projection (d) points on the two neighboring cells which intercalate between the two daughter cells. Time is given in minutes. 0 is defined as the time before any sign of membrane contraction can be detected. Scale bar: 10 μm