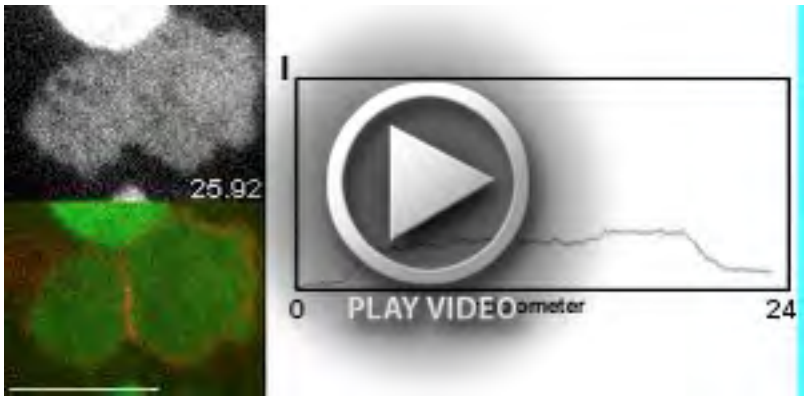
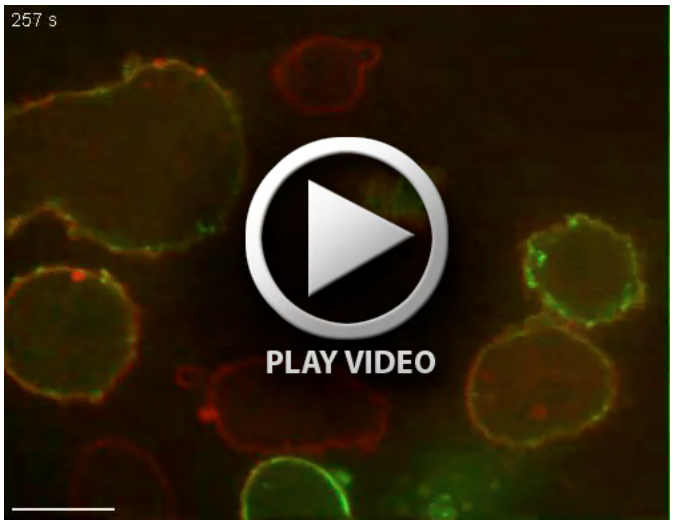
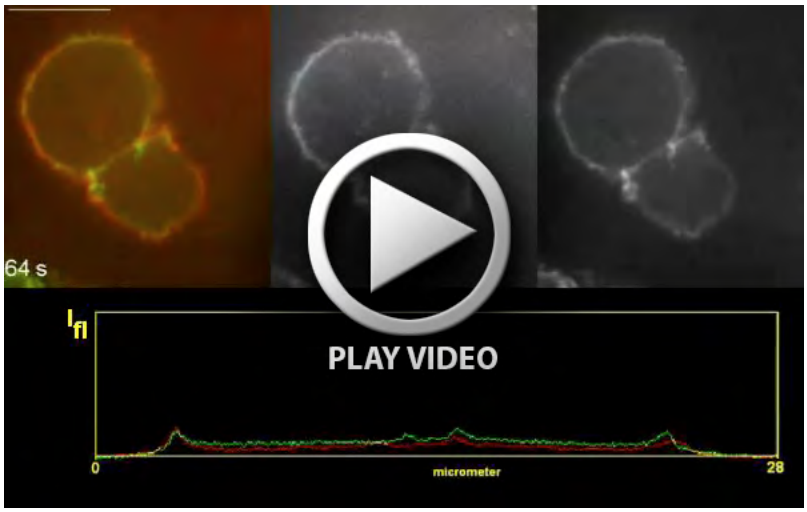


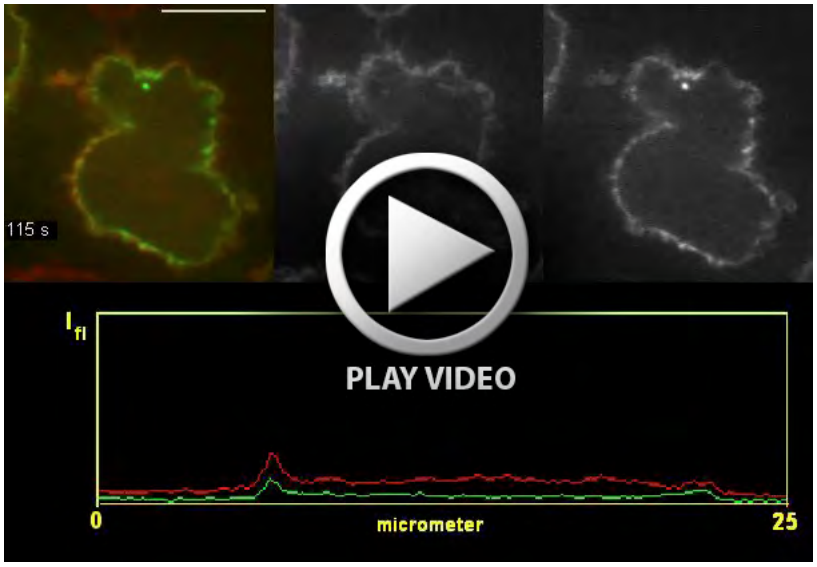
Movie 1. Diffusion of GFP from a donor (left) to an acceptor cell (right) after electric pulsing. A cell expressing GFP (green) fuses with a cell expressing mRFP-LimEΔ (red), the same cells as in Figure 2. Images on the left show the GFP channel (top), and merged images of GFP in green and the actin label in red (bottom). The graph on the right displays fluorescence intensities I (x) along the scan shown in the first frame of the top image. Seconds before and after electric pulsing are indicated. Bar, 10 µm.



Movie 2. Overview on the fusion of cells double-labeled with the membrane-integrating dye FM4-64 (red) and with LimEΔ-GFP for filamentous actin (green). Three cells show bent membranes prior to fusion, in two of them these membrane tangles are surrounded by polymerized actin. (The third of the cells, on bottom, does not express the actin label.) The arrow points to the straight movement of a membrane vesicle out of the fusion zone. Seconds indicate time before and after electric pulsing. Bar, 10 µm.



Movie 3. Membrane fragmentation and actin accumulation at the fusion zone. A pair of cells is double-labeled with FM4-64 for membranes (red) and LimEΔ-GFP for filamentous actin (green). Top panels: Merged images (left), membrane label (middle), and actin label (right). Bottom panel: Fluorescence intensities I_{fl} along the scan shown on top in the first frame, quantifying the increase of actin coincident with the decline of the membrane label. Seconds before and after electric pulsing are indicated. Bar, 10 µm. The movie shows the same recording as Fig. 6A-D.



Movie 4. Cluster of four cells fusing into one. Membranes and filamentous actin are labeled as in Movies 2 and 3. Top panels: Merged images (left), membrane label (middle), and actin label (right). Bar, 10 µm. Bottom panel: Quantification of the membrane (red) and actin (green) labels along the scan shown in the first frame on top. Seconds before and after electric pulsing are indicated. This movie focuses on the middle of Movie 2 and corresponds to Fig. 6E-H.

Movie 5. Fusion of two pairs of cells treated with 10 µM latrunculin A for the inhibition of actin polymerization. The membranes are labeled using FM4-64. As a result of lacking support by cortical actin, the cells are rounded up and their membranes extend into chains of "pearls", as reported previously (Gerisch et al., 2004). Membranes of the left pair are already in contact before fusion commences, those of the right pair appear to stay separate and to fuse at 20 s of pulsing immediately after contact formation. Seconds indicate time before and after electric pulsing. Bar, 10 µm.

Movie 6. Microtubules in electric-pulse induced cell fusion. Cells expressing GFP-α-tubulin are induced to fuse. In these cells the centrosomes and microtubules are labeled. The magnification has been changed during the run, as indicated by the bars. Bars, 10 µm.