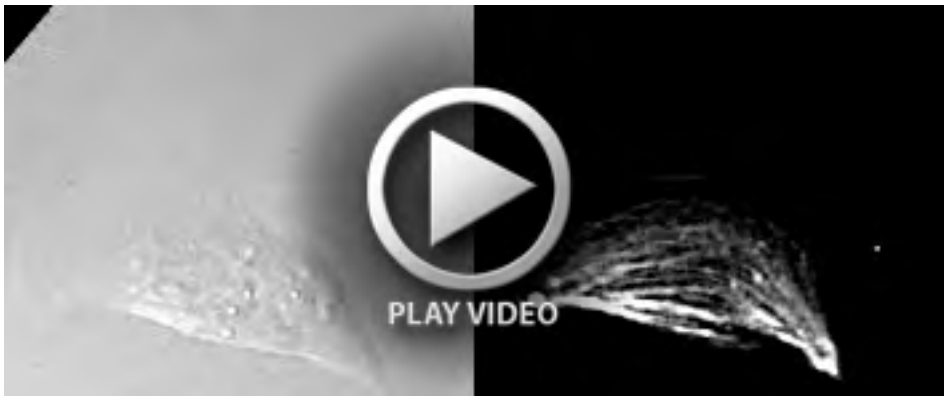
Movie 1. Preparation for electroporation with the new electroporator. First, 2 μl of electroporation medium was sucked into the tip of an auto-pipette. An electroporation cuvette was then attached to it.

Movie 2. Procedure for electroporation using the new electroporator. First, the auto-pipette was carefully lowered by hand until the bottom of the cuvette contacted the surface of the coverslip on which cells were adhered. Electroporation medium was then discharged into the space enclosed by the cuvette and coverslip by pushing the end of the auto-pipette with the thumb of the right hand. Finally, an electric field pulse was applied by pushing the switch of the electric circuit with the left hand.



Movie 3. Crawling migration of a fish keratocyte loaded with a high level of Alexa phalloidin. A few minutes before the movie was recorded, electric field pulses were applied to the cell in the medium that included 100 μmol l^{-1} Alexa Fluor 546 phalloidin. Stress fibers can be clearly seen in the cell body. The movie is shown 100 times faster than real time.

Movie 4. Crawling migration of a fish keratocyte loaded with a low level of Alexa phalloidin. A few minutes before the movie was recorded, electric field pulses were applied to the cells in the medium that included 25 μmol l^{-1} Alexa Fluor 546 phalloidin. Speckle staining of F-actin clearly reveals retrograde F-actin flow in the lamellipodium. The movie is shown 35 times faster than real time.