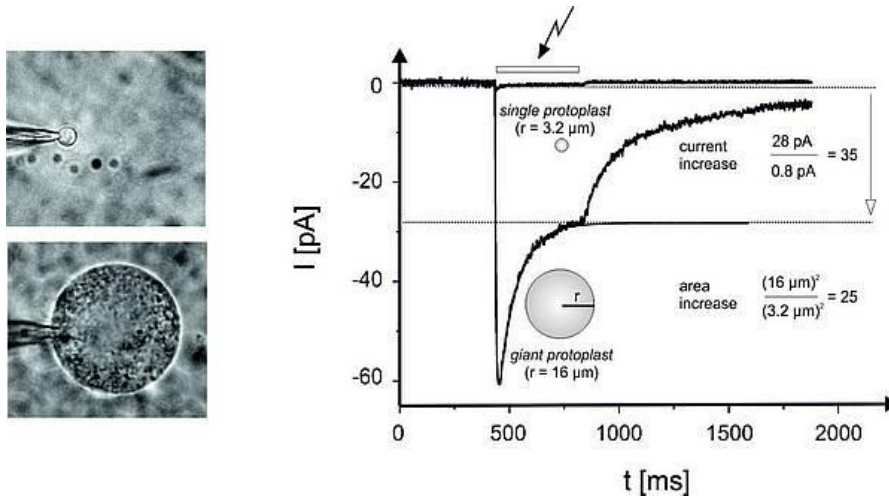
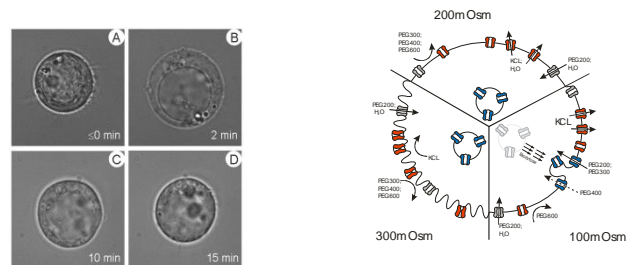


<2> Prof. U. Zimmermann and Dr. V.L. Sukhorukov April 5 (Friday) 10:50-12:20
 “Electromanipulation of Cells”

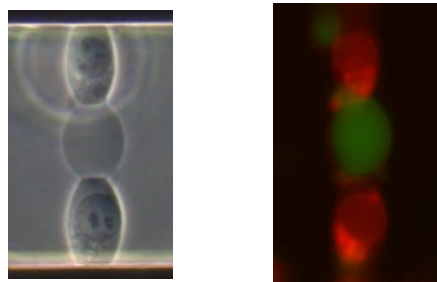
1) Multi-cell electrofusion of transgenic eukaryotic and prokaryotic cells for electrophysiological studies of photoactivated channels (e.g. channelrhodopsin, etc.).



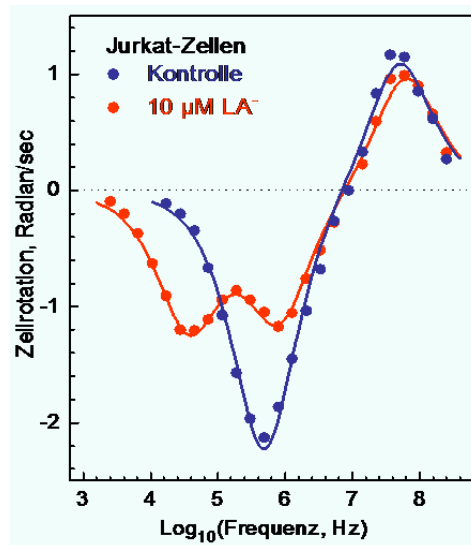
2) Swelling-activated channels for small organic osmolytes in mammalian cells studied by electroration, patch-clamp, molecular biological and microscopic techniques.



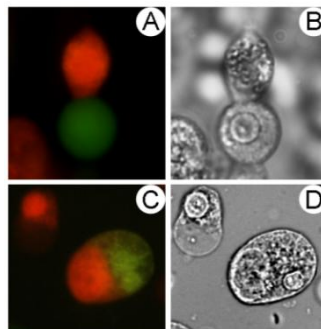
3) Electrical induction of cryotolerance in mammalian cells by means of electroinjection and cell fusion with giant liposomes bearing cryoprotecting agents.



- 4) Interaction of structurally dissimilar lipophilic anions with cell membranes studied by a combination of patch-clamp and electrorotation techniques.



- 5) Optimization of medical applications of electrofusion for production of hybridoma cells and cellular vaccines against cancer (e.g. dendritic-tumor cell fusion).



- 6) Application of the electrorotation technique in the developmental biology using Japanese medaka fish oocytes and embryos

