Detection Means of the Effects of Electromagnetic Field on Membrane Nano-pore Forming Proteins

Niloofar Ketabi^a, Hamid Mobasheri^a

^aUniversity of Tehran, Iran

Alteration of membrane surface charges and membrane Channel activity represents one of the most interesting effects of the electromagnetic exposure on biological structures. Here channel protein activity was recorded in real time by the voltage clamp method. The effect of non-ionizing electromagnetic fields in ultra high frequency (UHF) on the physical behavior of protein, OmpF, was investigated and by our preliminary analysis, we saw these effects in the feature of increasing in voltage sensitivity of this nano pore forming channel. Also increasing the fast flickering of the channel and tendency of the protein to go to the closure state can be considered as the effects of the inserted electromagnetic field.