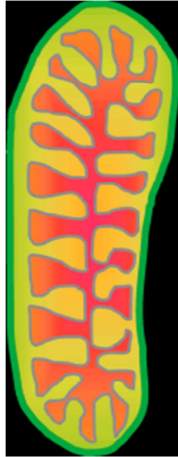


Abstracts



MITOCHONDRION 2014

MitoImaging Workshop

12 May 2014, Warsaw, POLAND

organized by:

Nencki Institute

Polish Mitochondrial Network MitoNet.pl

Bioenergetic Section of Polish Biochemical Society

“Diffusion of Drp1 in a living cell – insight into the fission mechanism” Jędrzej Szymański (Nencki Institute, Warsaw)

Drp1 protein is a key player in the process of mitochondrial fission. The assembly of Drp1 monomers into the higher order ring like is not fully understood. We studied the diffusion of Drp1 in living cells using fluorescence correlation spectroscopy in order to determine the oligomeric state of the Drp1 in the cytoplasm of HeLa cells. Observed results suggest that Drp1 is preassembled into oligomers in the cytoplasm before binding to mitochondria.

„ Mitochondrial network in retrograde signaling”

Joanna Szczepanowska (Nencki Institute, Warsaw)

The multiplicity of mitochondrial functions requires this organelle to communicate with other compartments of the cell by receiving and emitting signals. Mitochondrial dysfunctions activate modifies intracellular signaling, especially the mitochondrial retrograde signaling (MRS). The aim of our project is to test an involvement of mitochondrial dynamics in MRS, especially in selected neurological diseases where mitochondrial dysfunctions are implicated in pathology. Observation of dynamic processes of mitochondrial fusion and fission were carried out with confocal microscope special techniques.



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