

Involvement of DRPs in photosynthesis and mitochondrial fusion

Dynamin-related-proteins (DRPs) belong to a super-family of large GTPases that are present in all kingdoms of life from bacteria to higher eukaryotes including mammals and plants. These GTPases have systematically been demonstrated with a particular ability to shape the form of biological membranes. In particular, they have extensively been shown as playing fundamental roles in membrane scission events and in more limited instances, to participate in fusion of biological membranes. Taking into consideration the importance of DRPs for biogenesis and proliferation of energy transducing membranes and their poorly understood implication in membrane fusion, this project, will aim at analyzing involvement of DRPs in photosynthesis and lipid bilayers fusion through the prism of two energy transducing membrane compartments, the chloroplast from *Chlamydomonas reinhardtii* and the mitochondrial network from *Saccharomyces cerevisiae*.