

In cells, mitochondria fulfil diverse set of roles, including a production of energy-rich molecules, which are necessary for proper functioning of the cell, calcium homeostasis, apoptosis and even biosynthesis of Fe-S centres, heme and steroids. To coordinate some of these processes with events occurring in the rest of the cell, mitochondria need to communicate with the other cellular structures through their physical contacts. Resulting intracellular platforms give rise to additional mitochondrial functions. This thesis summarizes current findings from the cells of mammalian model organisms and the budding yeast *Saccharomyces cerevisiae* about the interactions of this semiautonomous organelle with other cellular components and about the functions, which these interactions mediate.