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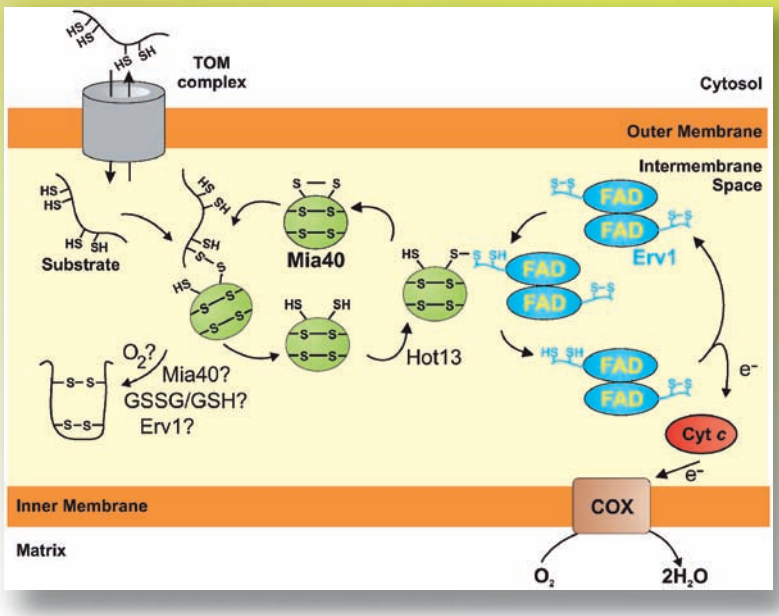

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	Protein Synthesis
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Cell:	Cell General
	Biomembranes, Organelles, and Protein Sorting
	Muscles
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	Extracellular Matrices and Cell Adhesion Molecules
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	Cell Death
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	Biomaterials
	Bioactive Substances
	Synthetic Peptides and Oligonucleotides
	Gene and Protein Engineering
	RNA Technology
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Author Index

COVER: Current model of the disulfide relay system that drives import of proteins into the intermembrane space of mitochondria. Substrates of this system include mitochondrial chaperones, enzymes and components required for metal transport and the biogenesis of the respiratory chain. They all contain cysteine residues that are usually arranged in a twin Cx_3C or twin Cx_9C motif. The substrates cross the outer mitochondrial membrane in a reduced and unfolded state and are subsequently oxidized by the central players of the pathway, Mia40 and Erv1. Oxidation triggers folding of the substrates which are then trapped in the intermembrane space. The electrons are transferred from Mia40 to the flavoenzyme Erv1 via intermolecular disulfide exchange reactions. Reduced Erv1 then shuttles the electrons to the single electron acceptor cytochrome *c* and the respiratory chain. Several mechanistic aspects such as the generation of the second disulfide bond in the oxidized substrate are still unknown and require further studies [See Deponte and Hell, p. 599].