

MITOCHONDRIAL DYNAMICS IN NORMAL PHYSIOLOGY AND DISEASE

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Mitochondria are dynamic organelles that continually fuse and divide. Recent findings indicate that these dynamic processes are important for the function of mitochondria. Impairment of mitochondrial fusion leads to neurodegenerative disease. Mitochondrial fusion requires the function of three large mitochondrial GTPases--the mitofusins Mfn1 and Mfn2 and the dynamin-related protein OPA1. I will summarize our efforts to dissect the function of these proteins in distinct steps in mitochondrial membrane fusion.