Doctoral College
Metabolic & Cardiovascular Disease

MITOCHONDRIAL SUBSTRATE-LEVEL PHOSPHORYLATION AS A MEANS OF ENERGY-HARNESSING IN NORMAL AND TUMOR CELLS DURING HYPOXIA

GUEST LECTURE by

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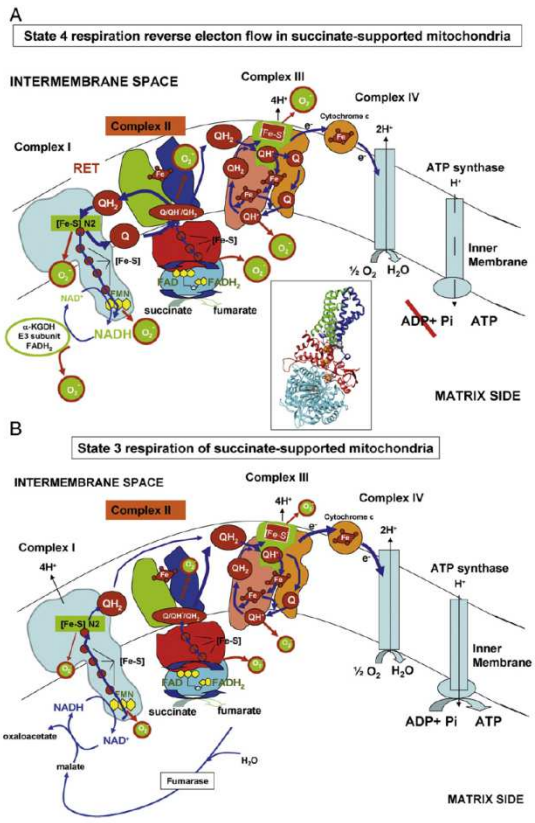
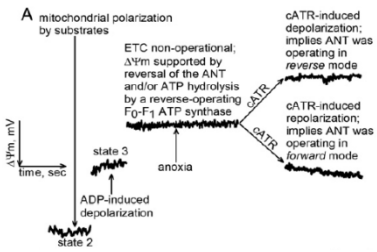
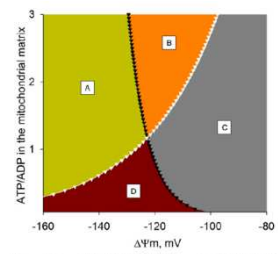
Monday, 22.11.2018
17:00
Seminar room MC1.F.05.016, Department of Pathology (MED Campus, Neue Stiftingtalstrasse 6, 5th floor), MUG



Sites of ROS production along the mitochondrial respiratory chain in succinate supportet mitochondria.



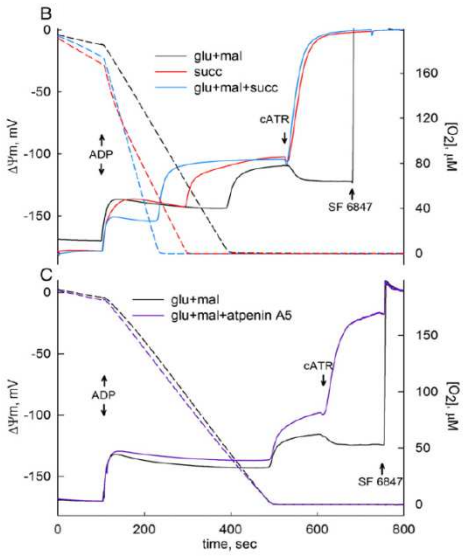
Explanatory cartoon graph of ΔΨm measurements of mitochondria regarding the „biosensor test“ addressing the directionality of the ANT, and as an extension of this, the directionality of SUCL.



E_{rev_ATPase} (black triangles); E_{rev_ANT} (white triangles)

A F_0-F_1 ATP synthase: 'forward'; ANT: 'forward'; SLP: may or may not operate
B F_0-F_1 ATP synthase: 'reverse'; ANT: 'forward'; SLP: operational
C F_0-F_1 ATP synthase: 'reverse'; ANT: 'reverse'; SLP: may or may not operate
D F_0-F_1 ATP synthase: 'forward'; ANT: 'reverse'; SLP: may or may not operate

Computational estimations of Erev_ANT and Erev_ATPase as a function of [ATP]/[ADP] in the mitochondrial matrix.



from: Succinate, an intermediate in metabolism, signal transduction, ROS, hypoxia, and tumorigenesis.
Tretter et al. (2016) Biochem Biophys Acta. 1857:1086-101