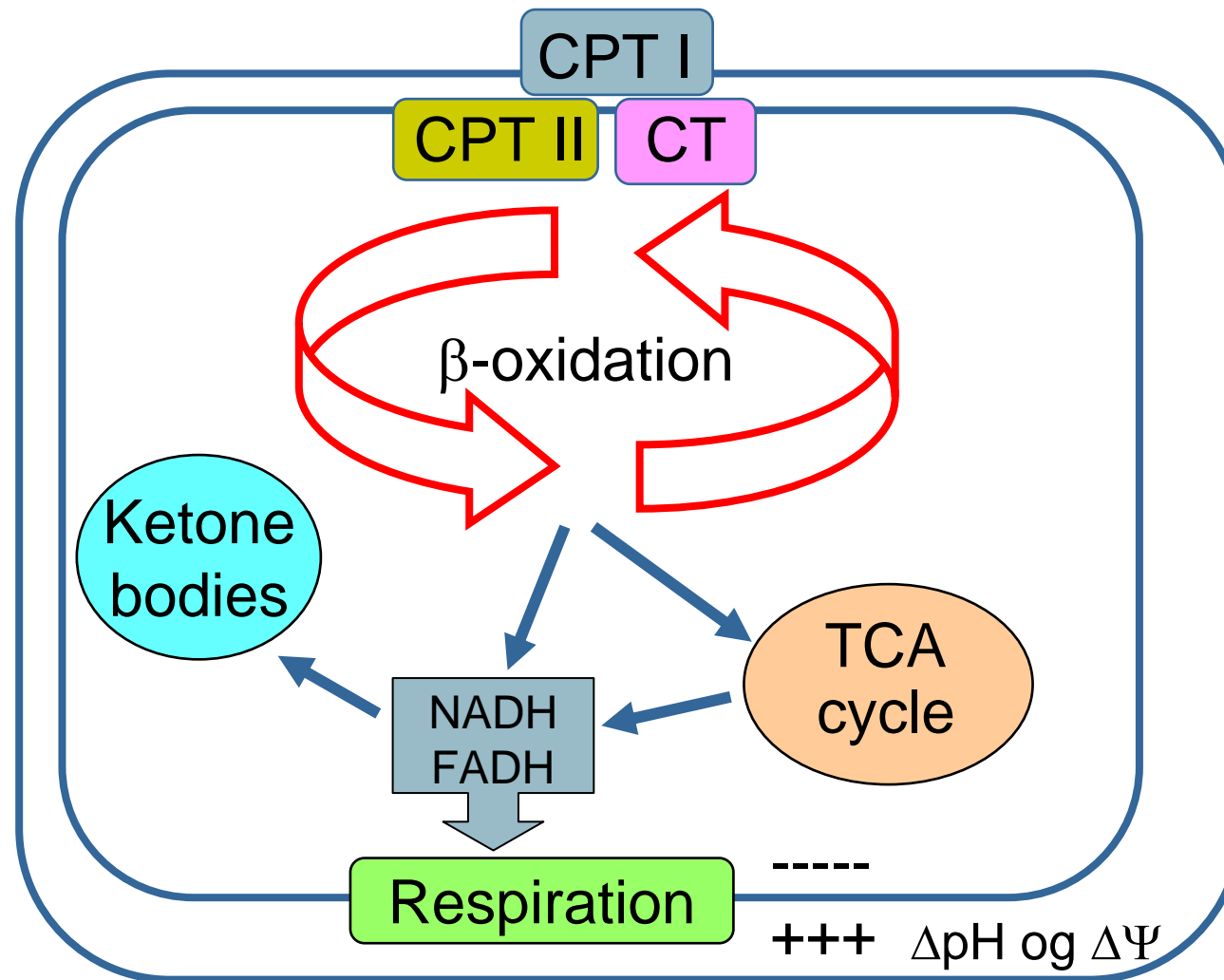


# Respirometry, monitoring mitochondrial function

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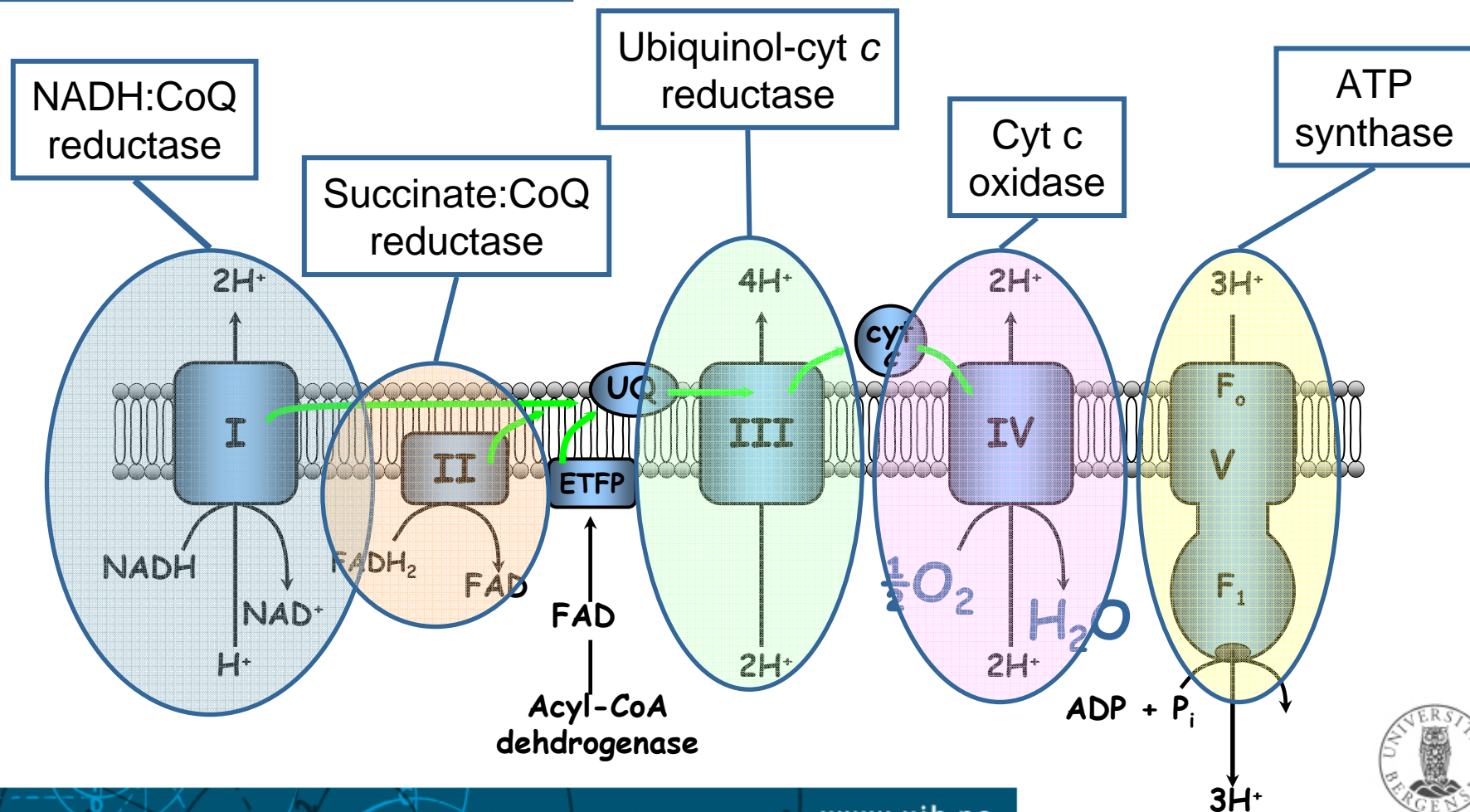


# Mitochondrial energy metabolism



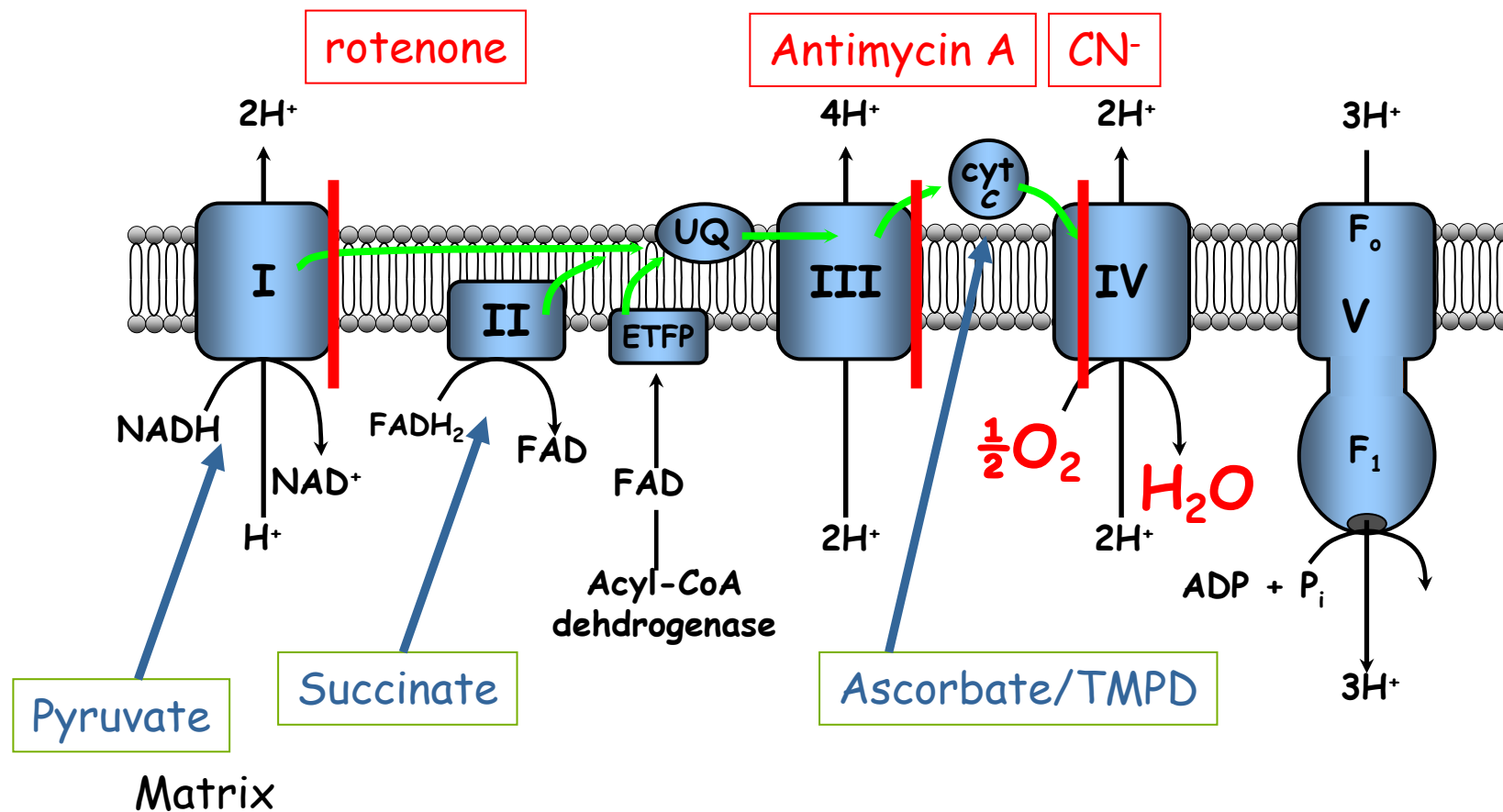
# Mitochondrial oxidative capacity

## Single complex activities



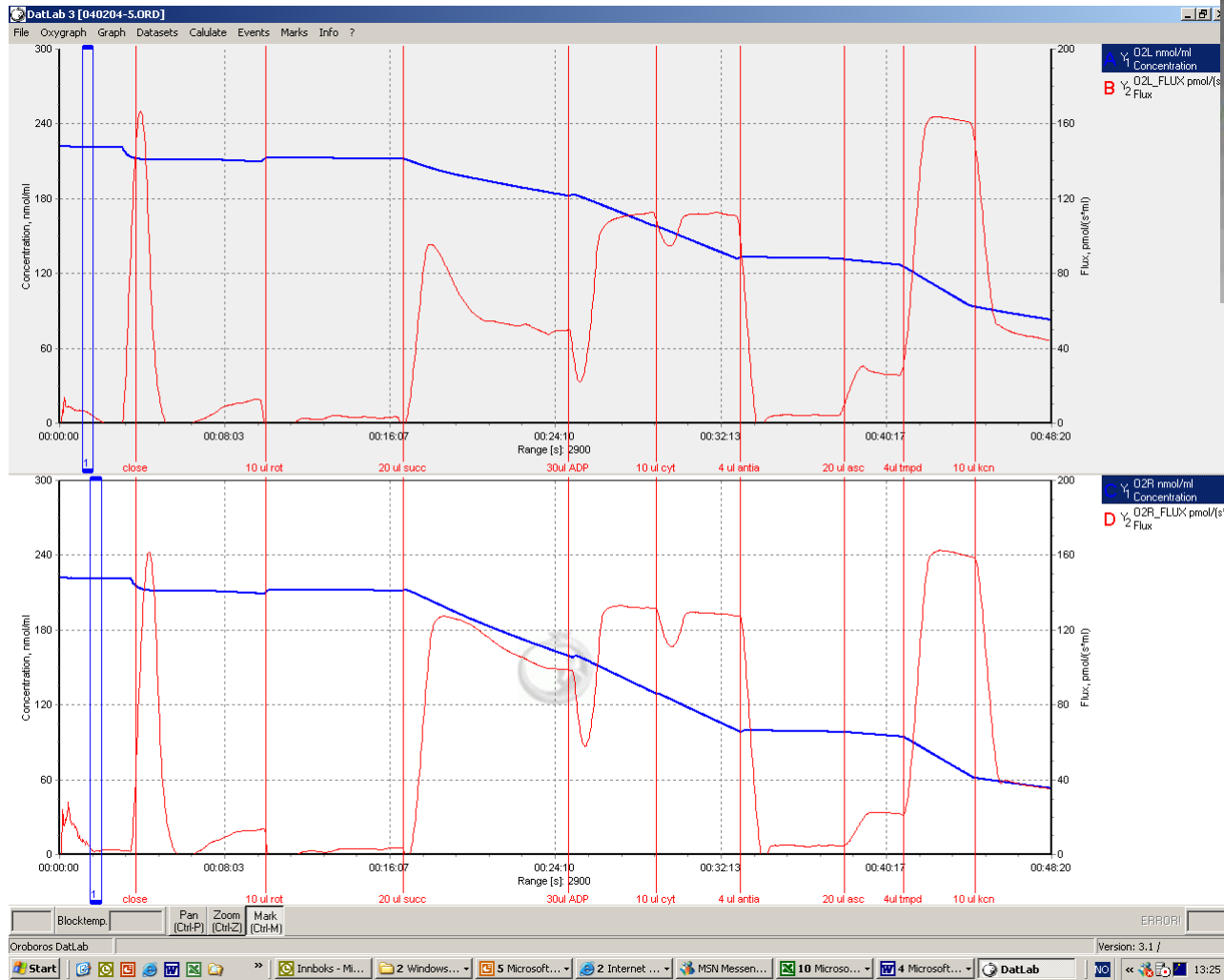
# Depletion of mitochondrial membrane potential

Intermembrane Space



# Respirometry

-measuring oxygen consumption



# Samples?

- Isolated mitochondria
- Cells
- Biopsies  
e.g. Permeabilized muscle fibers

=> intact/viable

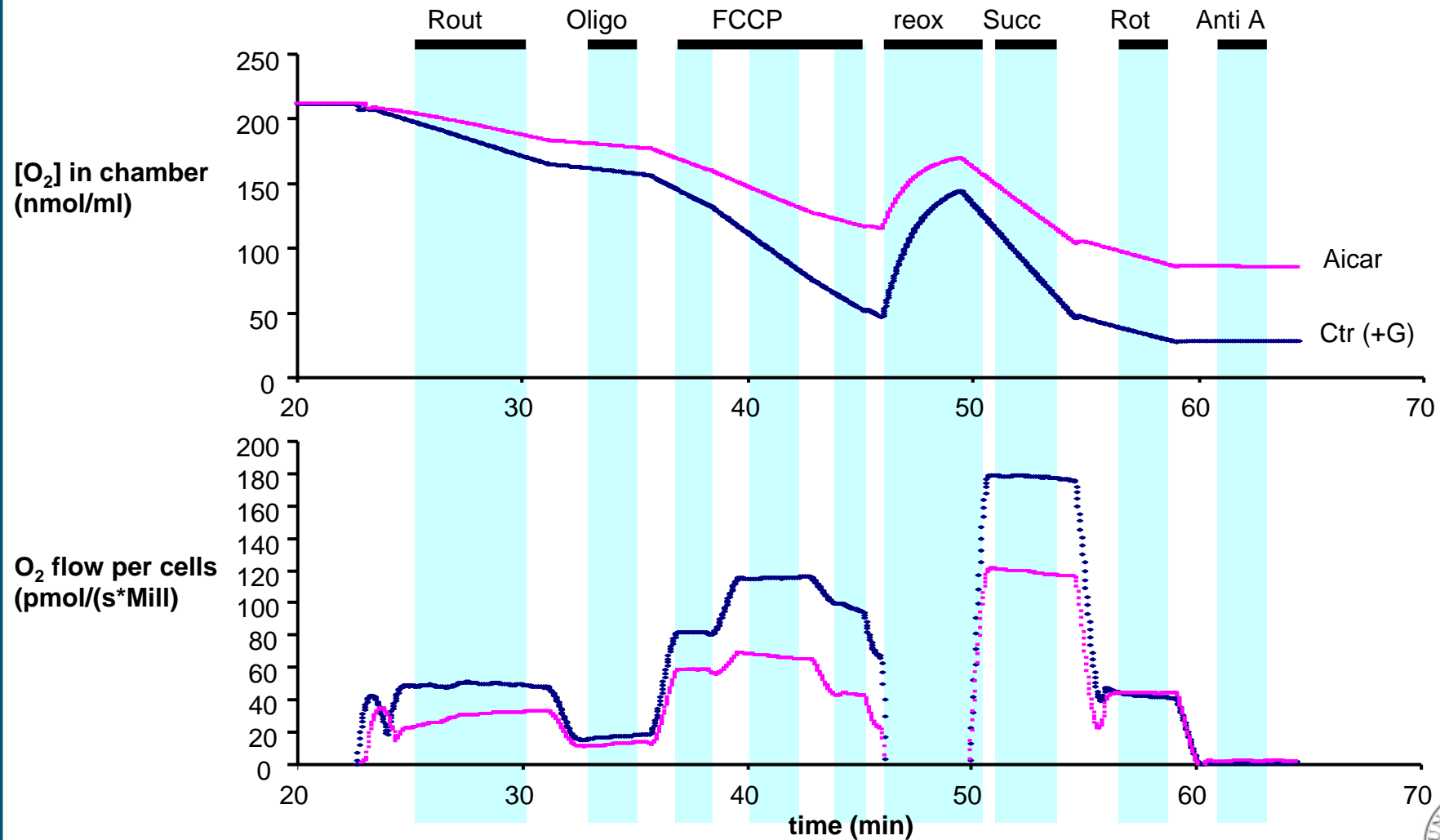


# Parameters?

- Routine respiration
- Respiratory capacity
- Respiratory complex activities
- Respiratory control
  - uncoupling
  - energy transduction

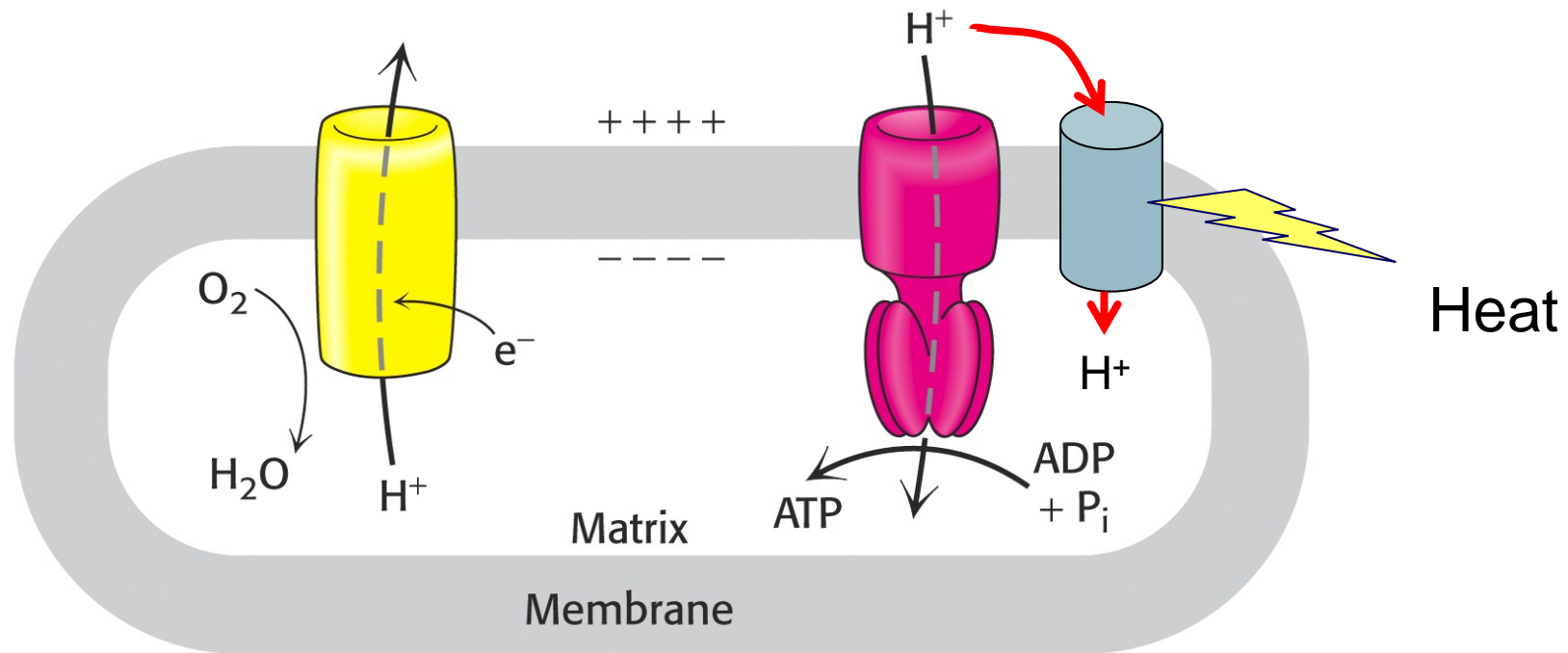


# Measuring oxygen consumption

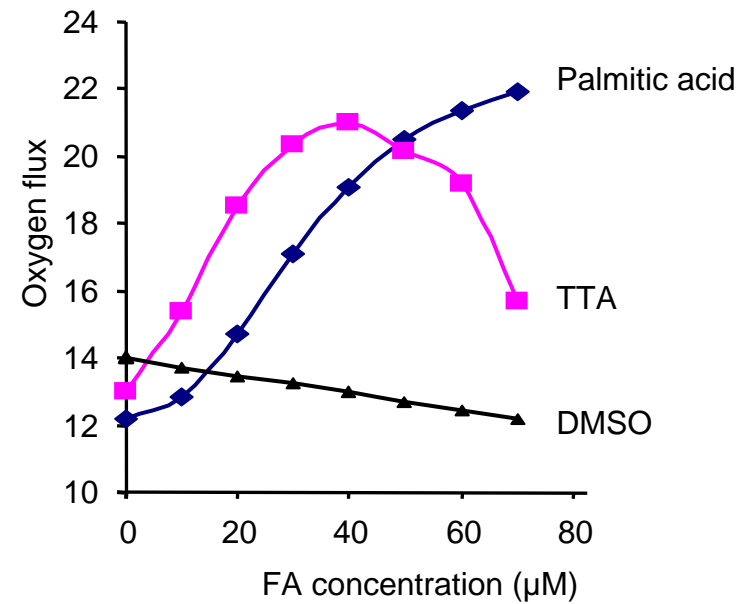
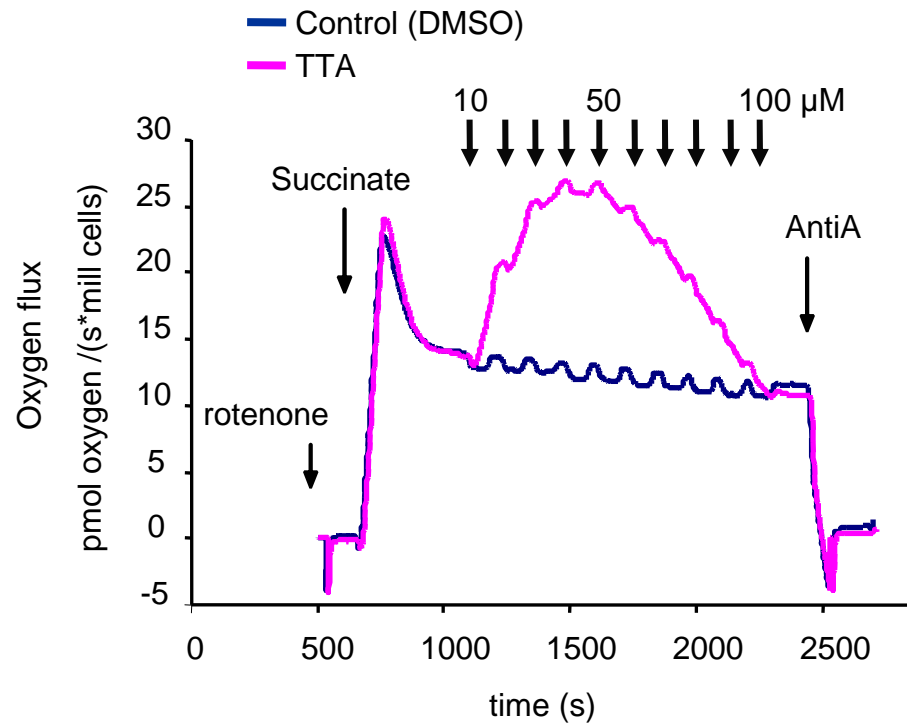




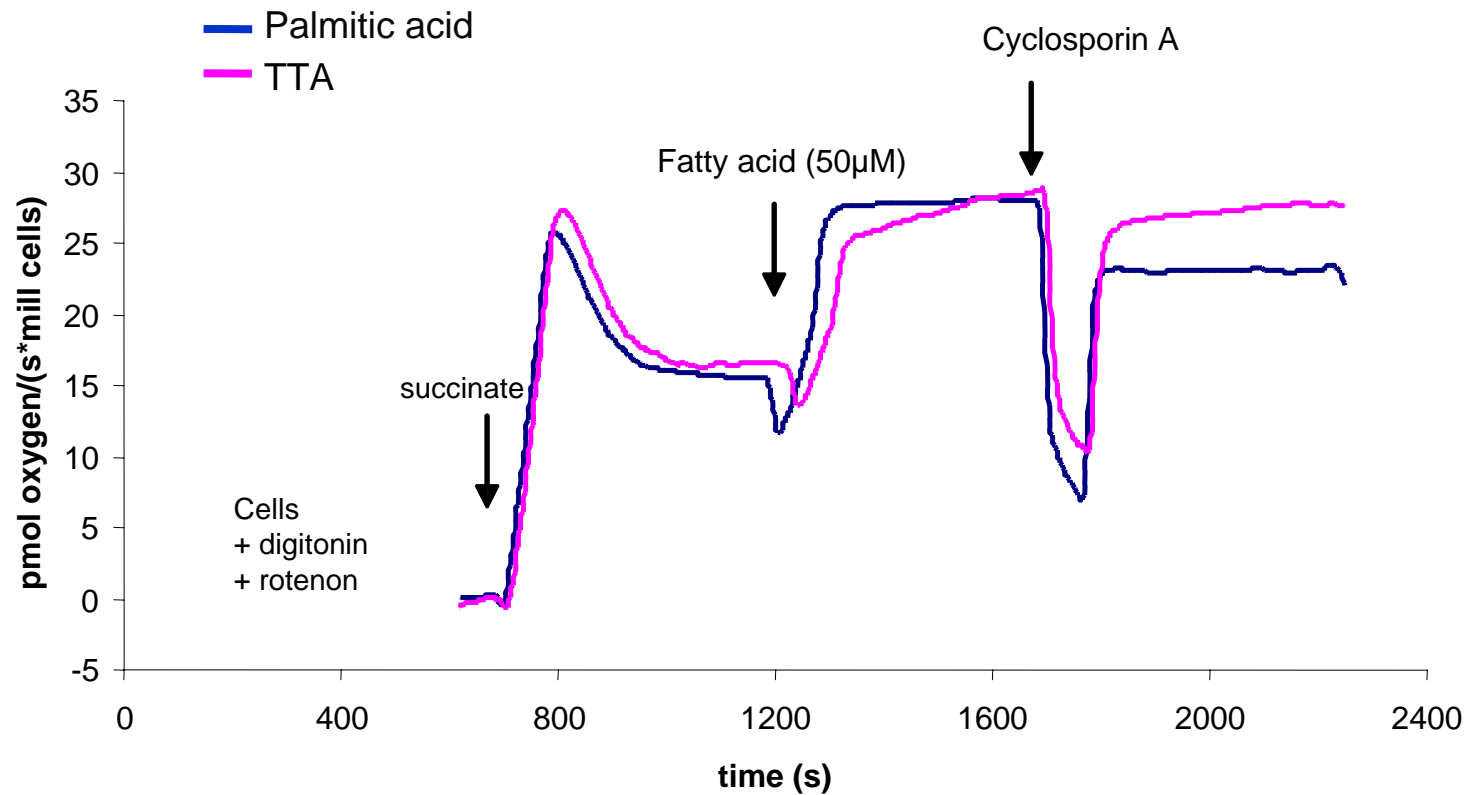
# Uncoupling



# Uncoupling effects of fatty acids



# Involvement of a cyclosporin A sensitive pore?



# Test trace

- Cultured cells (HL60/Jurkat)
- Routine respiration
- Complex I activity
- Respiratory capacity
- Flux ratios

