2k brief ROS

OROBOROS INSTRUMENTS

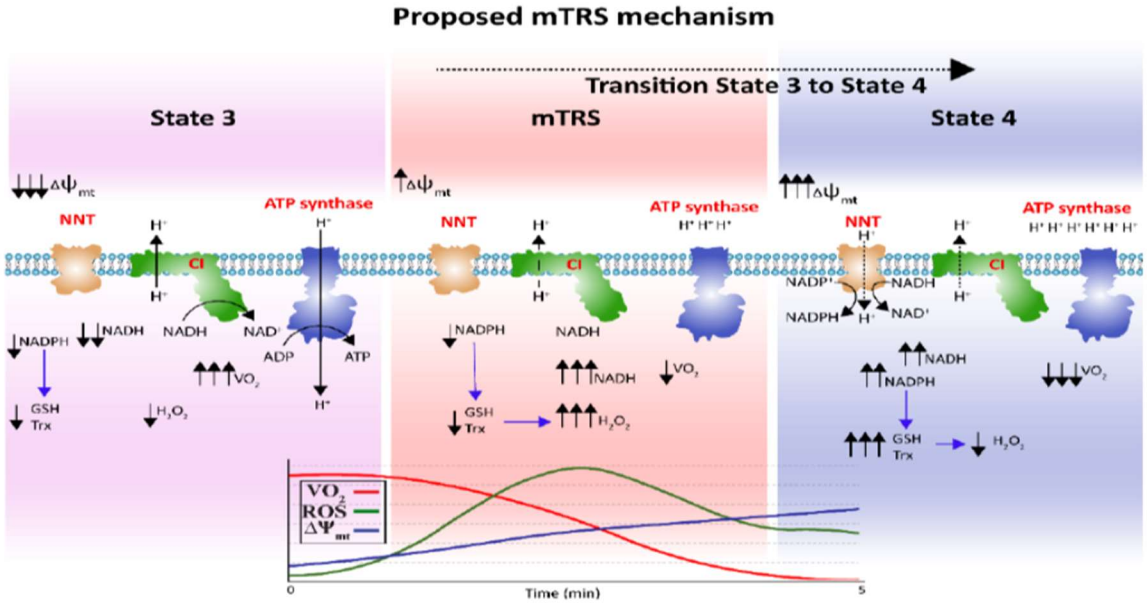
http://wiki.oroboros.at/index.php/O2k-Publications:_RONS;_Oxidative_stress

## High-Resolution FluoRespirometry and oxidative stress


Biochim Biophys Acta 1858:955-965 (2017).

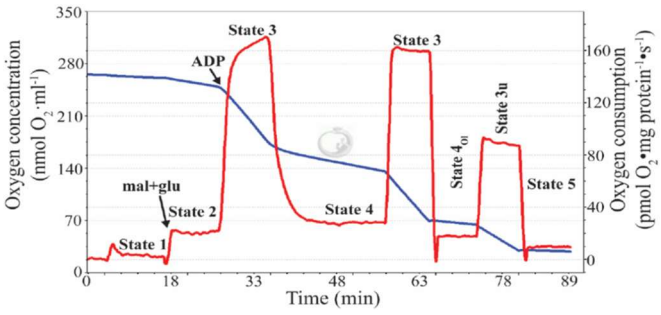
Mitochondiral transition ROS spike (mTRS) results from coordinated activities of complex I and nicotinamide nucleotide transhydrogenase

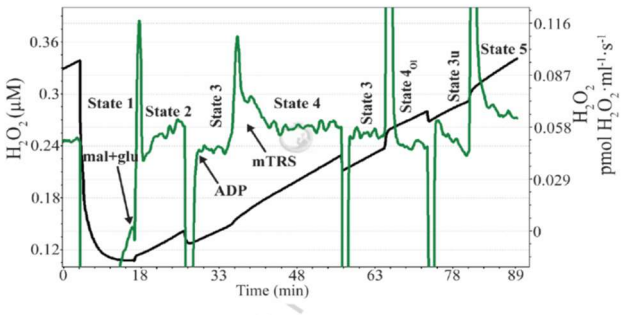
Mahmoud S. Sharaf, Don Stevens, Collins Kamunde

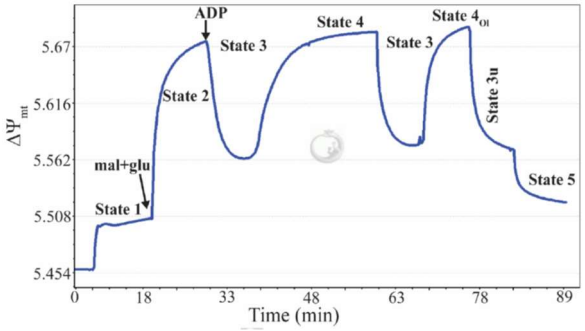


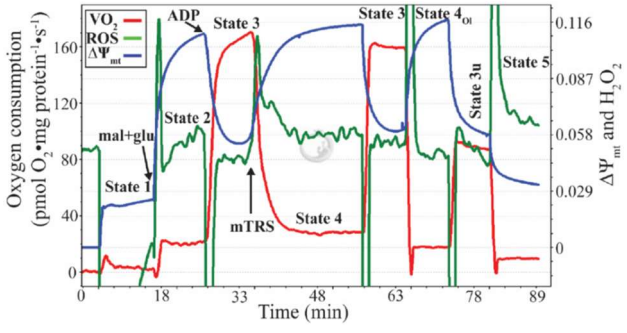

Biochim Biophys Acta 1858:955-965 (2017).

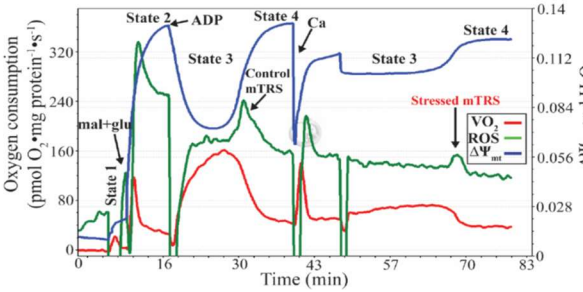
## Simultaneous real-time high-resolution measurement of mitochondrial respiration, $H_2O_2$ production and membrane potential

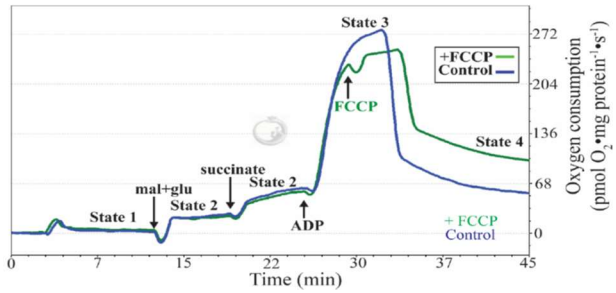


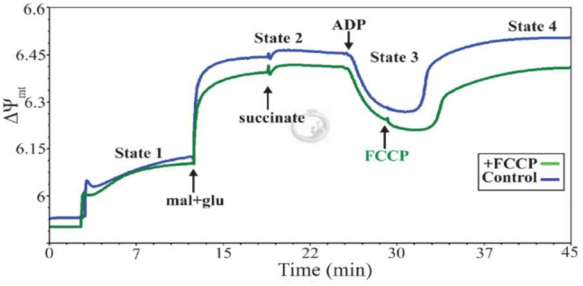



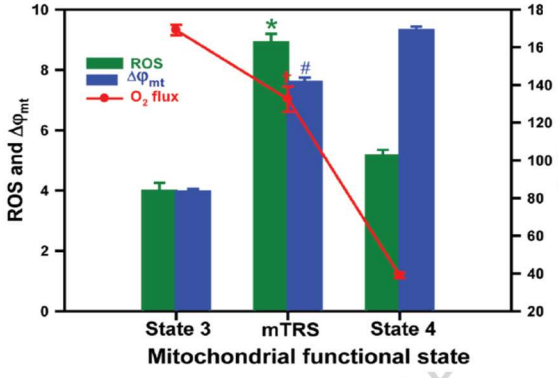



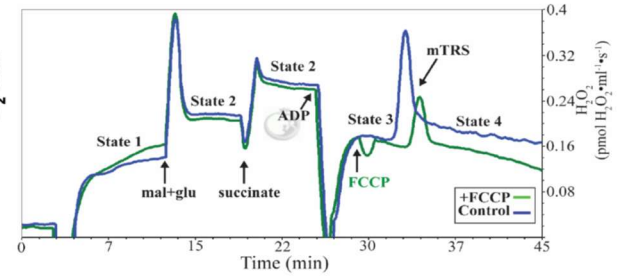


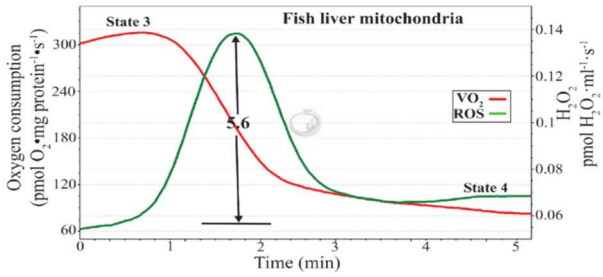

**The functional interconnection of mitochondrial respiration, hydrogen peroxide production and membrane potential determine the mTRS amplitude.**

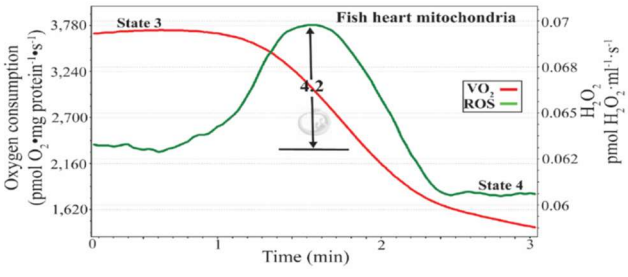


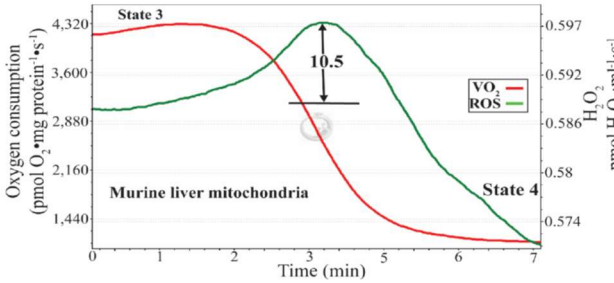



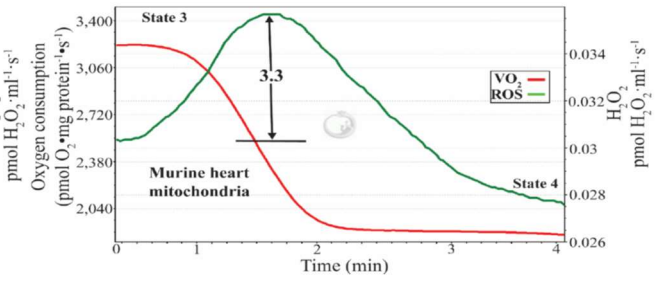




**Comparative physiology between trout and mice reveals that the mTRS mechanism is conserved in mammals**




Reference: Sharaf MS, Stevens D, Kamunde C (2017) Mitochondrial transition ROS spike (mTRS) results from coordinated activities of complex I and nicotinamide nucleotide transhydrogenase. Biochim Biophys Acta 1858:955-65.