**Fig. 1.** Respiration in the framework of cellular catabolism. Aerobic respiration is the utilization of the reducing equivalents (NADH or FADH) as fuel substrates for electron transfer to O2 as the electron acceptor. In core pathways of energy metabolism, catabolic reactions are coupled to the phosphorylation of ADP to ATP, with energy transformation mediated by the protonmotive force, ∆p. Anabolic reactions are tightly integrated with catabolism, both by ATP as the intermediary energy currency and by small organic precursor molecules as building blocks for biosynthesis (not shown). Not all ATP is produced by oxidative phosphorylation system or the O2 consumed at the mitochondria. Glycolysis involves substrate-level phosphorylation of ADP to ATP in anaerobic fermentation. Furthermore, partial extra-mitochondrial oxidation of fatty acids and amino acids proceeds in peroxisomes without coupling to ATP production: acyl-CoA oxidase catalyzes the oxidation of FADH2 with electron transfer to O2; amino acid oxidases oxidize FMNH2 or FADH2. Coenzyme Q, Q, and the cytochromes b, c, and aa3 are redox systems of the mitochondrial inner membrane (mtIM). Dashed arrows indicate the connection between the proton pumps (respiratory Complexes CI, CIII and CIV) and the transmembrane ∆p. Mitochondria and peroxisomes are maintained intact and associated in various mitochondrial preparations used in respiratory studies, whereas the cytosolic components are separated from the mitochondria for the analysis of oxidative phosphorylation. ;Glycerol-3-phosphate, Gp; tricarboxylic acid cycle, TCA cycle.

**Comments related to the Fig. 1 drawing.**

The drawing representation is very busy and difficult to make it more accurate and complete without complexity. My suggestion is to simplify the Figure in line with the text that it is in the figure legend. The main points are to stress ATP production during glycolysis and oxygen consumption by peroxisomes. At the mitochondrial level, transfer and production of reducing equivalents to feed the OXPHOS system where oxygen will be consumed and ATP produced.