

**Textbook biochemistry challenged: the unconventional citrate metabolism in parasitic *Trypanosoma***

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The Krebs cycle (TCA) in trypanosomes does not work as a cycle in the way we know it from many other model organisms. Also, citrate acts as an extracellular signaling molecule in trypanosome differentiation. Is there a connection? We approach this problem by reverse genetic manipulations (knock out, RNAi) of several enzymes of the energy metabolism, metabolomic analysis (in collaboration using IC-MS/MS, NMR and stable isotope labelling) and *in vitro* trypanosome differentiation models.