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(54) Title: PRODRUGS OF SUCCINIC ACID FOR INCREASING ATP PRODUCTION

(57) Abstract: The present invention provides novel cell-permeable succinates and cell permeable precursors of succinate aimed at increasing ATP-production in mitochondria. The main part of ATP produced and utilized in the eukaryotic cell originates from mitochondrial oxidative phosphorylation, a process to which high-energy electrons are provided by the Krebs cycle. Not all Krebs cycle intermediates are readily permeable to the cellular membrane, one of them being succinate. The provision of the novel cell permeable succinates is envisaged to allow passage over the cellular membrane and thus the cell permeable succinates can be used to enhance mitochondrial ATP-output.

