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(54) Title: STIMULATION OF CPT-1 AS A MEANS TO REDUCE WEIGHT

(57) Abstract: This invention provides methods and compositions for inducing weight loss and maintaining optimum weight comprising administering an agent that stimulates carnitine palmitoyl transferase - 1 (CPT-1) activity to the patient in need, including human patients. These methods do not require inhibition of fatty acid synthesis. In particular, this invention provides methods for development of therapeutics that selectively enhance fatty acid oxidation, increase energy production, and reduce adiposity while preserving lean mass, through the pharmacological stimulation of CPT-1 activity. In a preferred mode, the agent is administered in an amount sufficient to increase fatty acid oxidation. In another preferred mode, the agent is administered in an amount sufficient to antagonize malonyl CoA inhibition of CPT-1. In yet another preferred mode, the agent is administered in an amount sufficient to increase malonyl CoA level.