Improvement of muscle lipid-turnover in insulin resistance and type 2 diabetes

Stellingen behorende bij het proefschrift

Improvement of muscle lipid-turnover in insulin resistance and type 2 diabetes:
A supplementation and pharmacological approach

1. Skeletal muscle lipid content is similar in athletes and obese participants, despite higher insulin sensitivity in athletes, suggesting that lipid turnover determines insulin sensitivity – *This thesis*
2. Three months of carnitine supplementation increases insulin sensitivity in type 2 diabetes patients – *This thesis*
3. Dapagliflozin treatment for 5 weeks results in caloric restriction like effects, as a result of increased urinary glucose loss – *This thesis*
4. Dapagliflozin treatment for 5 weeks resulted in alterations in acylcarnitine species that reflect higher skeletal muscle lipid oxidation rates – *This thesis*
5. Supplements and pharmacological compounds that reduce fat uptake into muscle are effective in increasing skeletal muscle insulin sensitivity. – *This thesis, impact paragraph*
6. New therapies aimed at decreasing lipid content in liver and muscle will represent therapeutic targets for the treatment of insulin resistance and its associated comorbidities – *Samuel & Shulman, Cell, 2012*
7. If overnutrition is the central driver of all metabolic defects, then the most obvious therapeutic option is calorie restriction – *Petersen & Shulman, Physiol Rev., 2018*
8. Pharmacological SGLT2 inhibition gives rise to metabolic chimera where increased lipid use is uncoupled from its negative effects on insulin-mediated glucose disposal – *Ferrannini, Cell Metab., 2017*
9. Assumption is the mother of all mistakes – *Mr. Eugene Lewis Fordsworthe*

Yvo Op den Kamp, 17 juni 2021