Bile acid signalling in type 2 diabetes and its co-morbidities

Palmiotti, Anna

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PROPOSITIONS

belonging to the PhD thesis entitled

Bile acid signalling in type 2 diabetes and its co-morbidities

a journey from mice to man

1. Diabetes is a highly heterogeneous disease and uniform therapy is frequently associated with treatment failure. Personalised medicine should be implemented to improve the treatment of this chronic disease, which requires identification of personalised targets. (Standards of Medical Care in Diabetes, 2022)
2. Animal models are essential tools in basic scientific research, however, they do not always accurately mimic human (patho)physiology. (Future Science, 2015)
3. Humanization of the bile acid pool in *Cyp2c70*$^{-/-}$ mice increases the hydrophobicity of biliary bile acids, which leads to sex-dependent liver damage (cholangiopathy and fibrosis). (This thesis)
4. UDCA treatment completely restores liver pathology in female *Cyp2c70*$^{-/-}$ mice. (This thesis)
5. Colesevelam ameliorates liver pathology of *Cyp2c70*$^{-/-}$ mice likely due to decreasing hydrophobicity of biliary bile acids. (This thesis)
6. Colesevelam lowers plasma glucose in diabetic *db/db* mice but not in normoglycemic *Cyp2c70*$^{-/-}$ mice. (This thesis)
7. Lifestyle-induced improvements of insulin sensitivity are not associated with changes in plasma bile acid concentration or 12α/non–12α-hydroxylated bile acid ratio in subjects with obesity and Type 2 Diabetes. (This thesis)
8. Reserve your right to think, for even to think wrongly is better than not to think at all. (Hypatia of Alexandria, 355-415 AD)
9. All my life through, the new sights of Nature made me rejoice like a child. (Marie Curie, 1867-1934)
10. Quiet people have the loudest minds. (Stephen Hawking, 1942- 2018)

Anna Palmiotti