

Intestinal cholesterol absorption in humans

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Propositions

1. The constructed intestinal cholesterol absorption networks identified new genes associated with intestinal cholesterol absorption – This thesis.
2. The complex interplay between proteins expressed in enterocytes involved in intestinal cholesterol absorption is further complicated by the fact that various of these proteins are also expressed and involved in hepatic cholesterol metabolism – This thesis.
3. Differences in gene expression profiles between high-cholesterol and low-cholesterol absorbers after plant stanol ester intake help to further unravel the complex intestinal cholesterol network – This thesis.
4. Identifying single nucleotide polymorphisms (SNPs) to distinguish high-cholesterol from low-cholesterol absorbers will optimize healthcare by precision nutrition and precision medicine strategies – This thesis.
5. Statin monotherapy is not sufficient to reduce the atherosclerotic cardiovascular disease (ASCVD) risk in cases of high cholesterol absorption, and these individuals need combination therapy of statin with cholesterol absorption inhibition – Piia Simonen *et al.*, *Atherosclerosis*, 2023.
6. Gut microbiota-induced regulation of hepatic cholesterol metabolism is dependent on dietary lipid composition – Robert Caesar *et al.*, *Journal of Lipid Research*, 2016.
7. Although the integration of omics sciences to mainstream medical practice is becoming a positive reality, omics knowledge should never be hijacked to discriminate and stigmatize individuals – Yann Joly *et al.*, *Trends in Genetics*, 2021.
8. Genes are the software, and the environment is the hardware – Richard John Roberts.
9. Good health and good sense are two of life's greatest blessings – Publilius Syrus.
10. To eat is a necessity, but to eat intelligently is an art – François de La Rochefoucauld.