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Metabolic and mitogenic functions of fibroblast growth factor 1

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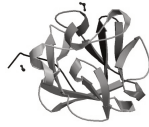
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Propositions

These propositions belong to the PhD thesis entitled:

Metabolic and mitogenic functions of fibroblast growth factor 1



1. The need to develop new antidiabetic or antisteatotic drugs is not shared by all stakeholders and is, therefore, not self-evident.
2. In humans, FGF-based drugs primarily improve lipid- and bile acid metabolism, while glucose metabolism remains mostly unaffected (Degirolamo et al. and this thesis).
3. The low central expression of the FGF co-receptor beta-klotho may explain why FGF19 and FGF21 do not affect glucose metabolism in humans (Hultman et al. and this thesis).
4. Converging evidence indicates that FGFs regulate metabolism primarily through indirect mechanisms involving the central stimulation of sympathetic neural circuits (Lan et al. and this thesis).
5. Roy Taylor's twin-cycle hypothesis provides the most convincing explanation regarding the pathophysiology of type 2 diabetes.
6. The FGFR signaling cascade is a highly flexible biological pathway, with the consequence that experimental manipulation of this receptor system may lead to additive effects being mistaken for synergistic effects (this thesis).
7. FGF variants that are considered non-mitogenic may still have adverse effects by inducing premature cell cycle abrogation (this thesis).
8. The ubiquitous, dual, and dominant role of mitogen-activated protein kinases in the regulation of growth factor activity suggests that signal transduction pathways are less complicated than generally thought.
9. Science is there to enjoy, not to worry about (Ali Saeed).
10. Amid a viral pandemic, it is reassuring that human well-being has increased dramatically over the past 200 years (Hans Rosling, Steven Pinker, and Peter Hein van Mulligen).
11. Science can help us to determine which values lead to human flourishing (Sam Harris).

Groningen, 7 juli 2020, Dicky Struik