Role of gut-liver axis in circadian exercise and dietary interventions to improve metabolic health

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Stellingen behorende bij het proefschrift

Role of gut-liver axis in circadian exercise and dietary interventions to improve metabolic health

1. Despite the unbelievable effectiveness of multi-hormone receptor modulation to induce weight loss in individuals with obesity, lifestyle interventions will always be an integral part of combating obesity and related disorders (*this thesis*).

2. The recent change in the definition and nomenclature from 'non-alcoholic fatty liver disease' (NAFLD) to 'metabolic dysfunction-associated steatotic liver disease' (MASLD) will guide clinical practice and pre-clinical research to prevent and treat liver disease (*Hsu & Loomba, Nat Metab 2024*).

3. Aligning daily activities with the circadian clock is crucial for healthy metabolism (*Panda, Science 2016*).

4. Aberrant gut microbiome composition causally contributes to obesity (*Hsu & Schnabl, Nat Rev Microbiol 2023*).

5. The role of gut microbiota in the weight loss-inducing effects of aerobic exercise should not be underestimated (*Allen et al., Med Sci Sport Exer 2018*).

6. Exercise-induced gut microbiome modulation causally contributes to ameliorating MASLD (*this thesis*).

7. Fasting regimens have health benefits beyond a simple reduction of the consumed calories (*this thesis*).

8. Fecal microbiota transplantation to antibiotics-treated mice instead of germ-free mice allows for better understanding of the impact of gut microbiome on cardiometabolic system (*this thesis*).

9. "*Never give up*" (Mo Salah, 2019, right before Liverpool's unbelievable comeback in the Champions league) also applies to science: despite perceived low odds one should never give up during the writing and publication process.