

# Imaging myocellular lipid droplet dynamics in relation to insulin sensitivity

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## PROPOSITIONS

1. Circadian misalignment compromises insulin sensitivity without changes in size, number or location of lipid droplets in muscle (*this thesis*)
2. In metabolically compromised individuals, 30 days of resveratrol supplementation augmented IMCL content in type I muscle fibres, but not in type II muscle fibres (*this thesis*)
3. Intramyocellular lipids are increased 4 hours after acute exercise in young healthy men when fasted, but not in the glucose-fed condition (*this thesis*)
4. For analysis of lipid droplet dynamics *in vitro* we need a tool that can differentially map incorporation of fatty acids into existing and new lipid droplets (*this thesis*)
5. Studying metabolic processes in the muscle by microscopy combined with human intervention studies, provides more extensive knowledge about human metabolism (*impact paragraph*)
6. Health can be defined as the ability to adapt and self-manage in the face of social, physical, and emotional challenges (*Huber et al., BMJ, 2011*)
7. The more passionate we are about our experiment, the more we must doubt our ability to be truly objective (*North, J Cell Biol., 2006*)
8. Imaging biological processes in living cells has had and will continue to have great impact on our scientific understanding of biological function (*McGeown, Exp Physiol., 2010*)
9. Wetenschap is twijfelen of je het zeker weet (*Willem Schoonen*)
10. I have not failed. I've just found 10.000 ways that won't work (*Thomas Edison*)
11. A great way to learn about your country is to leave it (*Henry Rollins*)