## **Propositions**

Belonging to the thesis

## MRI-based stem cell imaging using Gd-nanoparticles

- 1. As the safety, efficiency and versatility of Gadolinium-liposomes have been established *in vitro* and in *in vivo* animal models, they deserve translational attention in targeted diagnostics or even theragnostics (*this thesis*).
- 2. By dazzling simple contrast changes, Gd-liposomes bear the ability to visualize life to the naked "MR-eye" (*this thesis*).
- 3. MRI-based detection of compartmentalized Gd is at least as sensitive as that of SPIO, despite the superior intrinsic sensitivity of the latter (*this thesis*).
- 4. Cells labelled with relatively small liposomes having a relatively low liposomal Gd content exhibit the highest signal intensity (SI) on MRI (*this thesis*).
- 5. In vivo MR quantification is a feasible and reproducible tool to study cell fate using Gd-liposomes, but not using SPIO (this thesis).
- 6. A PhD project involving MRI requires no magnet to shorten a PhD graduate's (total body) relaxation time.
- 7. The Nobel Prize Committee should acknowledge "doers" instead of "triers". They should start off by finally designating five-fold nominated Mahatma Ghandi as a Laureate posthumously.
- 8. "No! Try not! DO or DO NOT. There is no try." (Master Yoda in "Star Wars: The Empire Strikes Back").
- 9. Judgement of children by elementary school teachers is often biased in favor of children from advantaged backgrounds (OECD Review on the Dutch elementary schools, in "Netherlands 2016: Foundations for the Future, Reviews of National Policies for Education").
- 10. Too many propositions distract from the essence of a message. Pythagoras became world-renowned with a single "stelling".
- 11. "I don't count the sit-ups. I only start counting when it starts hurting because they're the only ones that count. That's what makes you a champion." (Muhammad Ali)