

Propositions

1. Automatic fat selection from multi-echo acquisitions makes the addition of external fat references superfluous. - *Chapter 3, this thesis*
2. Looping Star can make hyperthermia treatments in the MR more accurate and more comfortable for the patient and the clinical staff when compared to DE-GRE. - *Chapter 4, this thesis*
3. MRT performance during hyperthermia treatments is not uniformly reported in the literature, impeding progress of the field. - *Chapter 2, this thesis*
4. Performing the MRI acquisition under breath hold does not significantly affect the MRT performance in the oropharynx region. - *Chapter 5, this thesis*
5. MRT will be able to improve on real-time thermometry-guided hyperthermia, patient feedback-guided hyperthermia and simulation-guided hyperthermia either by obviating invasive measurements or subjective reporting, or by providing a wealth of real-life data with which pre-treatment simulations can be improved. - *Discussion, this thesis*
6. Any research project without the active involvement of attending clinicians will never manage to progress to routine clinical treatments.
7. The human biology of heat dissipation is so individual and complex that direct temperature measurement will remain crucial to guide hyperthermia treatments.
8. “Nothing in science has any value to society if it is not communicated.” - *Anne Roe*
9. “[In research] one needs not only great perspicacity but often a degree of good fortune.” - *Christiaan Huygens*
10. “The good thing about science is that it's true whether or not you believe in it.” - *Neil deGrasse Tyson*
11. “Time is an illusion. Lunchtime doubly so.” - *Douglas Adams*