

Propositions to accompany the thesis "*Fast Daily Interfraction and Intrafraction Prostate Repositioning for High Precision Radiotherapy*"

Theodore Funwi Mutanga, June 21st, 2011

1. Implanted fiducial markers allow for fast daily correction of translational errors in prostate radiation therapy with high accuracy. *[this thesis]*
2. Deformation of the seminal vesicles limits margin reduction with daily online translation corrections based on markers. *[this thesis]*
3. For marker based prostate positioning, there is no significant benefit from rotation corrections in addition to translation corrections. *[this thesis]*
4. Intrafraction errors partially reproduce from day-to-day thereby limiting margin reduction in prostate radiotherapy if not corrected. *[this thesis]*
5. Electronic portal imaging devices have significantly facilitated time and workload efficient strategies for managing daily positioning errors with minimal extra imaging dose to the patient. *[this thesis]*
6. Open source software is more beneficial to the advancement of science and technology than commercial *closed source* software.
7. In addition to the doctor's assurance, if a placebo is given to mothers and their ailing children, the risk of self-medication will be minimized.
8. Cancer researchers are not holding back on cure for cancer in order to preserve their jobs.
9. The only way we can live peacefully is to realize that while we have personal freedoms and rights, our personal judgments and choices have complex interactions with the society as a whole.
10. While the occurrence of disputed goals in soccer is rare, they are often high in significance when they occur and should no longer be ignored.
11. In computer programming for scientific research, code optimization is better left to the end of programming as opposed to optimization as you go.