Longitudinal radiomics for prognosis in non-small cell lung cancer

Propositions accompanying the dissertation

Longitudinal radiomics for prognosis in non-small cell lung cancer

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1. **It is the imaging features' quantitative properties that make radiomics an objective method to quantify the phenotype of the tumor.**
   This thesis (chapter 6)

2. **To assure robust and reproducible radiomics analyses, an essential step in the process is feature selection, in which features considered as non-informative are eliminated.**
   This thesis (chapter 3)

3. **Radiomics has the potential to serve as an additional information source for the development of prediction models to improve personalized treatment.**
   This thesis (chapter 10)

4. **Improvements of imaging techniques, and standardization and consensus in settings, radiomics methodology and statistical approaches are of major importance for the success factor of radiomics.**
   This thesis (summary)

5. **Validation is required to assess generalisability of prognostic models to new, unseen data.**
   Zwanenburg et al.

6. **Biomarkers are an important piece of the lung cancer puzzle, and serve as signs that can help doctors understand how each person's cancer is different.**
   Merck

7. **Within the next five years, deep learning will play a significant role in radiotherapy and imaging.**
   Ge Wang and Mannudeep Kalra

8. **The information obtained from decision support systems can help patients develop informed preferences, which are the basis for shared decision-making.**
   Révész et al.

9. **Sometimes the hardest pieces of a puzzle to assemble, are the ones missing from the box.**
   Dixie Waters

10. **Time is the most valuable thing that a man can spend.**
    Diogenes