Propositions belonging to the thesis:

**Lung Cancer Screening: Optimization through risk stratification**

1) Natural history modeling can provide insights in the long-term benefits and harms of lung cancer screening policies beyond the information provided by randomized clinical trials and observational studies alone. (this thesis)

2) Lung cancer screening can be (cost-)effective in a population-based setting, provided that high-risk individuals are selected based on stringent smoking eligibility criteria. (this thesis)

3) Even though participants of lung cancer screening have a heightened risk of mortality due to their (past) smoking behavior, lung cancer screening yields a substantial number of life-years for each lung cancer death prevented. (this thesis)

4) Risk stratification can improve the identification of individuals eligible for lung cancer screening. (this thesis)

5) Risk stratification based on the results of the screening test(s) can aid in the detection of lung cancer and may allow personalization of a participant’s screening regimen. (this thesis)

6) Giving up smoking is the easiest thing in the world. I know because I've done it thousands of times. (Attributed to Mark Twain)

7) Just because you can create a predictive model, it doesn’t mean that you should. (Vickers&Cronin, Urology, 2010)

8) Without the aid of statistics nothing like real medicine is possible. (Louis, Am J Med Sci, 1837)

9) Statistics - A subject which most statisticians find difficult but in which nearly all physicians are expert. (Senn, Statistical Issues in Drug Development 2nd edition, 2008)

10) Puns are the highest form of literature. (Alfred Hitchcock)

11) Perseverance, secret of all triumphs. (Attributed to Victor Hugo)

Kevin ten Haaf
Rotterdam, December 7th 2017