Stellingen behorend bij het proefschrift:

Quantifying and improving outcomes of breast cancer screening. Evaluation and long-term model predictions.

1. Digital mammography leads to a higher programme sensitivity than screen-film mammography due to a higher breast cancer detection rate but not a lower interval cancer rate (*this thesis*).

2. Adding biennial mammography screening starting between age 40 and 50 years to current screening leads to considerable increases in life years gained for acceptable costs and moderate decreases in breast cancer deaths but the gains in benefit come at the expense of increases in false-positive findings (*this thesis*).

3. Triennial screening for women at lower than average risk of breast cancer results in better ratios of harms to benefits than current biennial screening for this group (*this thesis*).

4. Using a threshold higher than €27,023 per life year gained, digital breast tomosynthesis has a higher probability of being the more cost-effective strategy than digital mammography (*this thesis*).

5. In order to assess the cost-effectiveness of a breast cancer screening programme with digital breast tomosynthesis, it is important to explore different reading strategies with tomosynthesis and to define the optimal strategy (*this thesis*).

6. Divergence of survival curves in stage IV HR+/HER2+ versus HR+/HER2- subtype is likely attributable to major advances in HER2 targeted treatment (Howlader et al., Cancer Epidemiol Biomarkers Prev, 2018).

7. How different models arrive at their predictions of the harms and benefits of screening and treatment may be perceived as opaque due to the complexity of the models. Knowledge about these models generated with maximum clinical incidence reduction (MCLIR) analyses can help explain model differences in predictions of screening effectiveness (de Kok et al., Med Decis Making, 2020).

8. Telomeres hold potential as biomarkers that reflect the genetic predisposition together with the impact of environmental conditions and as targets for anti-cancer therapies (Srinivas et al., Cancers, 2020).

9. Science needs time, and good science needs a lot of it for data to grow and knowledge to evolve, but this process is ill-prepared to handle the rush for solutions to the COVID crises (Harper et al., J Pediatr Urol, 2020).

10. Acquisition of cats as domestic pets may represent a novel strategy for reducing the risk of cardiovascular diseases in high-risk individuals (Qureshi et al., J Vasc Interv Neurol, 2009).

11. Begin niet, of zet door (Ovidius).