The path to individualised breast cancer screening

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Stellingen behorende bij het proefschrift

The path to individualised breast cancer screening

1. While common low risk variants are clearly associated with breast cancer in families, the polygenic risk score of the proband in such a family is a poor predictor of the polygenic risk score of the proband's relatives (this thesis).
2. Addition of the polygenic risk score to family history-based risk prediction has a large impact on screening recommendations for women with a negative genetic test-result as well as carriers of *ATM* and *CHEK2* pathogenic variants (this thesis).
3. Although women with an *in situ* breast carcinoma have on average a lower polygenic risk score than women with an invasive breast carcinoma, a polygenic risk score is predictive for in situ carcinoma as well (this thesis).
4. Only collaborative research in large consortia results in cancer risk estimates for rare genetic variants being precise enough for use in the clinic (this thesis).
5. Proper clinical interpretation of relative disease risks is not possible without information on absolute risks (this thesis).
6. Researchers should at least present the effect size of polygenic risk scores per unit standard deviation to enable meaningful comparison with other studies.
7. The lack of ethnic diversity in most published genetic studies to date hampers clinical implementation of polygenic risk scores in present-day societies.
8. We must standardise data acquisition in electronic health records of patients to enable proper use in clinical research and improve health care.
9. Because every individual is unique, early cancer detection programs will not be of equal value to everyone (Adapted from D. Crosby et al., Science 2022).
10. De eisen voor proefpersoneninformatie voor WMO-plichtig wetenschappelijk onderzoek leiden tot een verhoogde inclusie van hoog opgeleide personen.
11. Conclusies in de wetenschap worden gekenmerkt door zijn vele nuances, keuzes in de kliniek zijn echter voornamelijk zwart-wit.
12. De PhD student van nu kan niet zonder informaticus aan haar zijde.