



Author response to “a response to ‘personalised medicine and population health: breast and ovarian cancer’”

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Received: 11 February 2019 / Accepted: 13 February 2019 / Published online: 21 February 2019
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Abstract

The author engages in further debate between numerous signatories of a letter who disputes that the author has put forward that the anticipated benefits of a personalised program for cancer prevention and screening are unwarranted. In the event that a cancer screening program is an effective means of mortality reduction, then the best strategy is universality. The benefit of a novel intervention should be evaluated prior to its introduction.

I thank the authors of this letter for the time taken to respond to my personal essay on personalised medicine and I thank the editors for offering me the opportunity to clarify my position.

In terms of the screening initiatives, the authors’ stated goal is not to “save lives”. If the primary study goal is reduce costs and screening-related morbidity, then I have no doubt that the study will be a success. One might also achieve this goal by stopping screening altogether. It is argued that the personalised approach offers a possible solution to the uncertainty about screening women in the forties. In my opinion, if screening works as well as the proponents claim, then it should be offered to all women.

Ultimately, the success of a screening program is predicated on the premise that screening saves lives and we cannot address the direct benefit of any screening policy on public health without measuring the mortality benefit. The authors take this benefit for granted. I am not convinced that early detection of breast cancer is beneficial and I explain why in references (Narod and Sopik 2018) and (Sopik and Narod 2018). If the foundations are faulty why fuss about the details?

The reduction in breast cancer risk following the fall in hormone replacement therapy use after the report of the

Women’s Health Initiative is an odd example of the success of personalised medicine. Had hormonal therapy been properly evaluated in the first place it might not have been adopted so quickly. The advocacy for personalised prevention in 2019 is reminiscent of the enthusiasm for hormone replacement therapy in the 1980s.

I have no objection to the goal of identifying women with a 40% or greater lifetime risk of breast cancer (I have been trying to do this for 25 years), but this small fraction is only 1% or 2% of women and I merely point out that preventing these few cases will not have any measurable impact on national mortality statistics.

The authors use the example of 23andme as a success story of a program promoting genetic testing to the public. Through The Screen Project, we offered full genetic testing for BRCA1 and BRCA2 to all Canadians for only 200 Canadian dollars via direct-to-consumer testing. We had 1300 customers in 20 months. I am not sure why our national uptake did not meet our expectations—perhaps, we would have been more successful if we had the advertising budget of 23andme. The result of this first phase of our guided direct-to-consumer initiative gave us pause and we are now re-evaluating our strategy to enroll a greater number of women into the program in the future.

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References

Narod SA, Sopik V (2018) Is invasion a necessary step for metastases in breast cancer? *Breast Cancer Res Treat* 169:9–23. <https://www.ncbi.nlm.nih.gov/pubmed/29353366>

Sopik V, Narod SA (2018) The relationship between tumour size, nodal status and distant metastases: on the origins of breast cancer. *Breast Cancer Res Treat* 170:647–656. <https://www.ncbi.nlm.nih.gov/pubmed/29693227>

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