Author's response to reviews

Title: Breast Density in Birth cohorts of Danish Women: A Longitudinal Study

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Version: 2 Date: 29 October 2012

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OCTOBER 29, 2012

Editor-in-Chief
BMC Cancer

Dear Editor

Please find enclosed our manuscript entitled “Breast Density in Birth Cohorts of Danish Women: A Longitudinal Study”, to be considered for publication as an original research article in the BMC Cancer.

In Denmark, the incidence of breast cancer has nearly doubled over the past 50 years. A high proportion of dense tissue in the breast is a strong predictor for breast cancer. The aim of our research was to explore the importance of birth year on women’s breast density to gain further insight into possible time trends that could help explain the historical increase in breast cancer incidence. The study was restricted to a time period from 1991 to 2001 in two regional Danish mammography screening programs that provided a unique chance of investigating time trends in breast density.

We found that the proportion of women with mixed/dense breasts remained fairly stable across age within a given birth cohort, but clearly changed across birth cohorts with an increased risk of mixed/dense breasts among women from younger compared with older birth cohorts. We further found, that hormone replacement therapy seemed to impose a greater risk of mixed/dense breasts among women from older than from younger birth cohorts.

The results of our study indicate that the aetiology of mixed/dense breasts should be found among risk factors that have changed across birth cohorts of women born from the 1920s to 1940s. Further, the results of our study showed, that birth cohort effects should be taken into account in epidemiologic studies addressing risk factors for breast density. To our knowledge, the findings of this study are novel and address an important topic within breast cancer research that has not
been explored in previous studies. We hope that you will find our manuscript relevant for publication.

The manuscript was recently submitted to the Breast Cancer Research Editorial team, who suggested the manuscript to be considered within the BMC series journals.

All authors of this research paper have directly participated in the planning, execution, or analysis of the study. All authors of this paper have read and approved the final version submitted. The contents of this manuscript have not been copyrighted or published previously. The contents of this manuscript are not now under consideration for publication elsewhere. The contents of this manuscript will not be copyrighted, submitted, or published elsewhere while acceptance by the BMC Cancer is under consideration. There are no directly related manuscripts or abstracts, published or unpublished, by any authors of this paper. The authors declare that they have no competing interests.

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