Author's response to reviews

**Title:** Alcohol consumption, body mass index and breast cancer risk by hormone receptor status.

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**Author's response to reviews:** see over
RE: Alcohol consumption, body mass index and breast cancer risk by hormone receptor status

Dear Editor-in-Chief,

My colleagues and I would like to submit the above-referenced manuscript to the *BMC Cancer* for consideration for publication.

Alcohol consumption increases the risk for breast cancer, and one of putative mechanism involves circulating estrogen level. We hypothesized that if alcohol and obesity compete via a similar mechanism to increase risk of postmenopausal breast cancer, then these two exposures may not be additive. We further hypothesized that the possible association between these exposures and breast cancer may pertain chiefly or exclusively to hormone receptor positive cancers. We tested our hypotheses in the Swedish Women’s Lifestyle and Health study, a large prospective study. Overall, we found no statistically significant association between alcohol intake and breast cancer risk after adjustment for confounding. However, when we stratified by baseline body mass index (BMI), a statistically significant elevated breast cancer risk associated with higher alcohol consumption was found only among women with BMI $\leq 25$. Also there was a statistically significant interaction between (BMI) and alcohol intake for risk of ER-/PR-breast cancers.
The contents of this manuscript have not been copyrighted or published previously, nor are they under consideration for publication elsewhere. The authors have no conflicts of interest regarding this manuscript. We anticipate that our findings will be of great interest to many readers of the BMC Cancer, and we look forward to hearing your decision regarding the suitability of this manuscript for publication in your Journal.

Sincerely,

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