Reviewer’s report

Title: The influence of prenatal exposure to trans-fatty acids for development of childhood haematopoietic neoplasms (EnTrance): a natural societal experiment and a case-control study

Version: 1 Date: 11 Oct 2017

Reviewer: Jessy Abraham

Reviewer’s report:

The protocol is on an interesting topic but the authors need to address certain concerns:

1. The protocol is based on the assumption that fetal exposure of TFA can lead to childhood cancers specifically hematopoietic cancers. And wants to correlate TFA levels in neonates born before and after a legislation was brought into effect in 2003-2004 banning use of TFA to hematopoietic cancers. Is there any previous studies showing that there was a marked decrease in hematopoietic cancers after the ban of iTFA in Denmark to back up the research protocol proposed by the authors. If not, the authors should do a survey on the incidences on hematopoietic cancers before and after the iTFA ban.

2. Since the study looks into prenatal exposure, the study may not have much relevance unless the results are back up with studies showing that there is a reduction in iTFA levels in mother's blood in the same period.

3. The selection of controls is not clear. As the samples will be taken at two different times (before and after legislation), how are the authors going to match "exact date of birth" (line 195 and 204).

4. For the same reason as in comment 3, how will "potential degradation of TFA affect equally cases and controls" (line 204 and 205)

5. The methodology is not structured. Inclusion of a flow chart will help in making the protocol more clear.

Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests'

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal