Reviewer’s report

Title: The effects of changing dairy intake on trans and saturated fatty acid levels-results from a randomized controlled study

Version: 9 Date: 2 March 2014

Reviewer: Rachel Brown

Reviewer’s report:

Minor Essential Revisions

1. Thank you for adding the information on ruminant sources. I would be careful commenting that this did not clearly influence the results, due to the limitations when using an FFQ for measuring dietary assessment.

2. I am still confused with the comments on dietary assessment. A one-month food diary would be not been required, nor is it feasible. Three-day food dairies are more the norm. The FFQ needs to be mentioned as a limitation in the discussion. I see the authors have done this.

3. Thank you for adding the CVs to table 1. Was the CV for measuring the fatty acids in the milk the same as for the plasma fatty acid analysis? Table 1 seems to have an incomplete sentence under the title.

Major Compulsory Revisions

4. I agree that the regression model is the best way to analyse the data. I don’t understand why there are 2 p-values in table 3. Why do you not have one p-value from the regression model for the overall differences between the 3 groups? The way it is performed for table 3 does not allow for comparison for reduced versus increased. Could the authors use a regression model to calculate an overall difference between the three groups? Then if the p-value is significant, pairwise comparisons can be performed to look at between group differences.

5. On page 7 of the results there is only a p-value for the difference in the increase and decrease dairy groups for serves of dairy. Please present the overall p-value for the difference in the three groups, as is presented for the dairy fat results.

6. The authors agreed that given there was no significant change in total saturated fat between the groups, the low dairy food group may have compensated with other high saturated fat foods. What are the likely sources of these saturated fatty acids? How might have this influenced the results of the study?

7. Page 9: suggest rewording the sentence “However the effects of the only fatty acid that changed with significant change in the diet…” Be more specific regarding the direction of change, and with which dietary change. The authors
then suggest that large changes in dairy food in the present study did not lead to significant changes in pentadecanoic acid. This appears inconsistent with the previous sentence suggesting it was the only fatty acid that changed?

8. Page 9: Reword “Similarly, rTFA similarly did not change…”

9. There are still inconsistencies with the references in the text. e.g. ref 13 on page 3.

10. It is my understanding that you can manually change references in endnote prior to formatting. The references need to be consistent.

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests