Author’s response to reviews

Title: Bioactive oat beta-glucan reduces LDL cholesterol in Caucasians and non-Caucasians.

Authors:

  Thomas MS Wolever (thomas.wolever@utoronto.ca)
  Alison L Gibbs (alison.gibbs@utoronto.ca)
  Jennie Brand-Miller (jennie.brandmiller@sydney.edu.au)
  Alison M Duncan (amduncan@uoguelph.ca)
  Valerie Hart (valerie.hart@rssl.com)
  Benoit Lamarche (benoit.lamarche@fsaa.ulaval.ca)
  Susan M Tosh (susan.tosh@agr.gc.ca)
  Ruedi Duss (ruedi.duss@creanutrition-sof.com)

Version: 2 Date: 20 October 2011

Author’s response to reviews: see over
RESPONSE TO REVIEWER #1

Reviewer's comments are numbered. Responses are shown in indented paragraphs.

Reviewer: Kevin Maki
This paper reports results from a post-hoc analysis of a clinical trial to investigate the LDL-cholesterol lowering effects of beta-glucan preparations in Caucasian and non-Caucasian subjects. The paper is well written and the study appears to have been well-conducted. I have several minor comments for the authors' consideration.

Thank you for your kind remarks.

1. Throughout the paper it would be preferable to use the term LDL-C to differentiate cholesterol carried by LDL particles from the LDL particle concentration, which was not measured.

   We agree with this and have changed as suggested throughout.

2. It would be of interest to see the LDL-C percent responses by week in the control and bioactive beta-glucan groups by ethnicity. Many published papers do not show responses over time. Our experience has been that the effects of viscous dietary fibers are maximal in 1-2 weeks and it would be of interest to allow the reader to evaluate the time course of the effect in the present study.

   A figure (new Figure 1) has been added to show the responses with time during the study. A sentence was added to the Results (lines 110-112) describing it.

3. I recommend that the authors include 95% confidence intervals for the LDL-C effects in the Caucasian and non-Caucasian subsets. While the study may not have had sufficient statistical power to detect a significant treatment by ethnicity interaction, there was a pattern suggesting that a substantially lower response in the non-Caucasian subjects can be ruled out with a fair degree of confidence. The 95% confidence interval for each group would help the reader to guage the range of differences that could be reasonably excluded.

   The mean reductions sited in the Abstract and Results now include 95% CI's, the existing Figure was redrawn to show 95% CI's; however the new Figure (weekly changes in LDL-C) shows SEM's because the 95% CI's are too large for some of the points to show with clarity.
RESPONSE TO REVIEWER #1

Reviewer's comments are numbered. Responses are shown in indented paragraphs.

**Reviewer:** Joanna Hlebowicz
The paper is well written and well referenced.

Thank you for your kind remarks.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. Is the study underpowered? Analyses were performed on a relatively small number of non-Caucasians and it may become significantly different with a larger sample size.

   Yes, this is acknowledged in the conclusions. We calculated the power of the study and have indicated this in some text added to the Discussion (line 140-144).

2. Were values of p<0.1 considered significant?

   No, we used p<0.05. A sentence was added to the Methods section indicating the criterion used for judging statistical significance (lines 103-104).

3. The main results of the trial are reported elsewhere. Briefly, what is not reported elsewhere? I suggest that you present only the new results in the results and the main results that are already reported in the Methods.

   We stated in the Methods section what is newly reported here (line 89). Text in Results which had been reported previously was moved to the Methods section as requested (subject flow and exclusions).