

## **Author's response to reviews**

**Title:** The total antioxidant content of more than 3100 foods, beverages, spices, herbs and supplements used worldwide.

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**Author's response to reviews:** see over

Oslo, December 14<sup>th</sup> 2009.

Dear Editor of BMC Nutrition Journal

Please find attached the revised manuscript “The total antioxidant content of more than 3100 foods, beverages, spices, herbs and supplements”.

Below are our responses to the reviewers’ comments:

Reviewer 1, Iris Erlund

One discretionary revision requested:

- 1) “On page 5 lines 9-11, the benefits of the modified FRAP assay are briefly discussed. A more detailed analysis of the pros and cons of the assay would improve the manuscript. “

**Our response:** To meet this request we have extended and improved the discussion on page 5 lines 9 to 18, with advantages and disadvantages of the modified FRAP assay used in the study.

Reviewer 2, Francisco FJ Romero

Three minor essential revisions were requested:

- 1) Provide more details about storage time.

**Our response:** To meet this request we have added more information about which samples were stored at 4°C and -20°C, respectively and for how long. The revisions are added on page 7, lines 4 to 7.

- 2) The reviewer would like the summarized results on berries and berry products to follow the summarized results on fruits and vegetables.

**Our response:** To meet this request we have included the results on berries and berry products in the paragraph with the results of fruit and vegetables, starting on page 11, last paragraph. In the original manuscript the aspects of biological effects of antioxidants are shortly mentioned and discussed in the second last paragraph of the

background. The reviewer is arguing that because the present method measures total antioxidant capacity and allows no identification of single antioxidant compounds or actual mechanisms of action, the discussion about biological effects should be avoided.

**Our response:** We do agree that the FRAP assay does not allow identification of single antioxidants, nor does it elucidate any mechanisms of action. We have included these views in the text (see page 6, first paragraph). Yet, we do find it appropriate to address the hypothesis of biological implications of antioxidants on health and disease. We have, however revised the discussion on page 6, emphasizing that the identification of compounds and mechanism is not in the scope of this article.

Other minor revisions:

While revising the manuscript for the reviewers comments we found some minor grammatical errors that we now have corrected (was/were, at/on etc.). To make tables 2 - 5 easier to read we have arranged the products alphabetically instead of ranked by FRAP values. In the result section we have moved by cut-paste the Nuts and seeds paragraph to the same paragraph as breakfast cereals, grain and legumes, so all items in Table 3 are mentioned in the same paragraph. These changes are only typographic. We have also added three commercial companies in the list of acknowledgments for providing samples of herbal medicine, herbs and wine.

In addition, as stated in the Background and the Method sections of the article (pages 6 and 8, respectively), the Antioxidant Food Database will be available online at the University of Oslo's web site. In connection with this online publication, parts of the data have also been published as part of a Norwegian popular science book about antioxidants, written in Norwegian, for the general population.

We hope the revised manuscript adequately meets the requests from the reviewers and that the editorial board will accept our revised manuscript for publication.

Yours sincerely,

Monica H. Carlsen