Reviewer's report

Title: Polyphenol intake and mortality risk: an observational study within the PREDIMED trial

Version: 1 Date: 18 February 2014

Reviewer: Augusto Di Castelnuovo

Reviewer's report:

Major Compulsory Revisions

1) The authors must report why the trial has stopped

2) The authors stated that "The FFQ was validated to assess total polyphenol intake using total polyphenol excretion in 137 spot urine samples in a clinical trial (r=0.48, P<0.01) and in a cross-sectional study (r=0.26, 138 P=0.04) [13]"

Besides the statistical significance, these data does not convince this referee about the validity of the polyphenol intake assessment and the FFQ. Please clarify. The relatively low values of r should be commented at least as a limitation of the study.

3) The authors have to recognize as a limitation of their study the fact that the intake of polyphenols was not directly measured but only indirectly derived from a FFQ.

Minor Essential Revisions

4) The authors "noted that those who did not drink alcohol had a stronger inverse association for total polyphenol intake (HR 0.39, 95% CI, 0.17-0.90, P-trend=0.04) than drinkers (HR 0.99, 95% CI, 0.59-1.65, P-trend=0.91), but the interaction was not significant (P-interaction=0.16)". I agree with the decision of the authors to not emphasize this finding because of absence of statistical significance for the interaction term. However, the observed trend is suggestive, and of very interest if it will be established in other studies. I suggest to add a comment on it in the discussion.

5) Please, add in table 1 the min-max values for total polyphenol intake at baseline in each quintile

6) Polyphenols and other food and nutrient intake were adjusted for total calories using the residual method before entering in the survival analyses. However, the authors added the total energy intake in their multivariable models. I have some concerns about this approach. Please, clarify.

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