Reviewer's report

Title: Effect of n-3 polyunsaturated fatty acid on gene expression of the critical enzymes involved in homocysteine metabolism

Version: 1 Date: 8 December 2010

Reviewer: Mahmoud Djalali

Reviewer's report:

Major Compulsory Revisions:
1-Method in abstract is not informative, the groups and enzymes should be defined clearly.
2-Conclusion in abstract, fatty acids had different effects on enzymes expressions, they should be mentioned specifically.
3-Page 6: assay of fatty acids should be explained more in details.
4-Page 8, line 8 what do you mean with research group?
5-The statistical tests are not mentioned specifically in result section.
6-In case of doing multiple comparisons, the post hoc test should be mentioned. In case of not doing that it seems to be unacceptable.
7-Discussion is the repetition of introduction, it should be revised thoroughly.

Minor Essential Revisions:
1-Results in abstract, abbreviations are used. Try to use them in full names for the first time.
2-Page 11, line 19 in remethylation pathway.
3-Page 5, line 5: the sentence seems to be incomplete.
4-Figure 1 legend should be changed, because the effects of n-3 PUFA on all of enzymes were not detected.
5-The text should be revised again to improve its english quality.

Discretionary Revisions:
the lables in table 2 and in figure 2 are not informative, please try to make them more clear (a, b, c).

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the
statistics.

Declaration of competing interests:
I declare that I have no competing interests.