Reviewer's report

Title: Ratio of n-3/n-6 PUFAs and risk of breast cancer: a meta-analysis of 274135 adult females from 11 independent prospective studies

Version: 4  Date: 13 November 2013

Reviewer: Michel de Lorgeril

Reviewer's report:

In general, the modifications in the revised manuscript (including the title) are acceptable.

There is however exception in page 10 (line 12) where it is written: "Fatty acid profile in serum only reflects acute dietary intake over the past few days".

This is wrong. They are studying phospholipids in serum and that small fraction of total serum fatty acids is not representative of the recent intake, contrary to the other serum fractions. Thus this part of the sentence should be deleted.

They could just say that: "Fatty acid profile in serum phospholipids may be an untypical representative of ...". The rest of the sentence is OK.

This is a critical issue which must be corrected.

Also corrections in page 13 (line 17) ["Ratio of n-3/n-6 PUFA in vivo influenced by dietary ration might be an independent predictive factor used for clinical diagnosis of BC"] are quite naive. Obviously such a weak association cannot be used for any clinical diagnosis. This should be deleted.

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

Statistical review: Yes, and I have assessed the statistics in my report.