Reviewer's report

Title: Habitual exercise with dietary milk fat globule membrane supplementation improves skeletal muscle performance in healthy adults: a randomized double-blind, placebo-controlled, crossover trial

Version: 1 Date: 8 April 2015

Reviewer: Julia Potter

Reviewer's report:

The authors should be congratulated on an interesting paper, it is clear that they have paid excellent attention to detail and therefore as a reviewer I have little to add other than some areas to consider.

Major compulsory revisions: none

Minor essential revisions: none

Discretionary revisions:

1. The authors may want to consider broadened the scope of application of this work, this may include its potential usefulness for athletes and post training recovery and also possibly neuromuscular diseases/atrophy other than ageing. This could help to boost the intro which feels a little vague at the moment.

2. Review the key words, I don't think that motor unit is a key search term for this paper.

3. Consider that thigh circumference is a very insensitive measure of muscle mass, did the BIA give a predicted muscle mass value? Not sure it would be much more sensitive but reporting both measures might give this assumption of no muscle increase more weight.

4. The increased Hb is intriguing and warrants greater consideration.

5. Considering that carbohydrate levels and the concomitant effect on insulin are key in muscle uptake of nutrients the paper would be enhanced with some report of what was consumed around the time that the supplement was taken.

6. Reporting the degrees of freedom, F and t values would make the statistical analysis more through. This is a small group to have sufficient power for a repeated measures ANOVA, not that this takes away from those that are significant.

Quality of written English: Acceptable

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

Declaration of competing interests:
None