Author's response to reviews

Title: The glycemic, insulinemic and plasma amino acid responses to equi-carbohydrate milk meals, a pilot- study of bovine and human milk.

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Author's response to reviews: see over
Dear editor,

Thank you for your interest in our manuscript “The glycemic, insulinenemic and plasma amino acid responses to equi-carbohydrate milk meals, a pilot-study of bovine and human milk”.

We are grateful to the reviewers for valuable comments. They have been incorporated into the paper, which has been much improved as a result. The answer to the questions and amendments made are listed below:

Responses to reviewer 2:

2. Main questions:
   a. Which was the fat content of the test meals? Was it comparable?
      The fat content of all the test drinks were set to match the commercial bovine milk used in the study (fat content 1.5%). This is an important factor and the information has now been incorporated into the manuscript.

   b. The two hour period of sample collection might not have been sufficient, since for some parameters (see GLP1 and GIP, fig 2, steady state was not achieved.
      A longer time period could have given more information regarding incretin responses. However, the study was executed in glycemic index setting with main focus on postprandial glycemia and insulin responses, thus the 2 hour postprandial measurements.

   c. A more sophisticated statistical analyses involving not only the role of specific amino acids on insulin and incretin responses, but also the possible interacting effect of glucose, should be performed.
      We had some difficulties understanding this comment and interpreted it in two different ways:
      1. The effect of glucose on insulin and the incretins is requested:
         The effect of glucose and GLP-1 as well as the effect of insulin and GLP-1 are already presented and discussed in the manuscript (p11 line 6-10 and
p 13 line 12-15. We found no correlations between GIP and glucose or insulin. Not so surprising did we find a positive correlation between the glucose incremental peak (iPeak) and the insulin iPeak (r 0.349 p =0.29), this finding is not a novel finding and is therefore not included in the manuscript.

2. *The effect of glucose on amino acids is requested:*
We did find negative correlations between plasma amino acids and glucose responses. We have now added text in the result paragraph (p12 lines 5-6) and in the discussion section (p 12 line 22-24). However, the glucose lowering effect of the amino acids is a secondary effect induced by the insulin release and the possible incretine effect, caused by the amino acids. Therefor these figures are not included in the tables.

d. *Were glucagon and free fatty acids measured?*
No, unfortunately they were not.

3. Minor questions;:
a. *Refs list should be expanded adding other papers on insulin and glucose responses to milk protein also in subjects with defective glucose-regulation (i.e. diabetes)*
2 new references have been added in the section in the introduction where this subject is discussed [1, 2].
