Reviewer's report

Title: Total calcium absorption is similar from infant formulas with and without prebiotics and exceeds that in human milk-fed infants

Version: 2 Date: 16 February 2012

Reviewer: Shane Rutherfurd

Reviewer's report:

The paper describes the impact of prebiotics on calcium absorption from an infant formula. The paper is well written and the study is a straightforward design. Overall I would recommend the paper for publication with only minor changes. These are given below.

Minor essential revision

Page 7 line 10: don't use the term “laboratory values”. Perhaps instead use “chemical analysis of serum samples.”

Page 7 line 11: Change “nutrition-related labs” to “chemical analysis”.

Page 8 line 12: Change “lab values” to “serum nutrient concentrations and alkaline phosphatase activity” or something similar.

Page 8 line 20: Change “equally distributed among” to “similar across each of”.

Page 9 line 4: Change “at time” to “at the time”.

Page 9 line 14 Change “Laboratory values” to “serum nutrient concentrations and alkaline phosphatase activity”.

Page 9 line 15: Serum calcium was significantly different but the actual difference was small, is it worth making that point here?

Page 10 line 16: Reword, as calcium absorption as determined in this study was not a rate of absorption but is the total extent of absorption.

Page 11 lines 3-4. Why does the higher calcium intake explain the lower absorption values in study 12. In studies we have carried out in our Institute using the pig as a model for the adult human calcium absorption was independent of dietary content. Is it a different situation for infants?

Page 11 Lines 6-7: Where is the mass balance data this sentence refers to?

Page 11 line 8 Is “routine” the right word?

Page 11 lines 9-12: I don’t agree. The comparison can be made- with the HM having a higher fractional absorption than formula but the formula having a higher absorbable Ca content than HM due to a higher concentration of Ca in formula compared to HM. Basically the Ca in HM is more available for absorption but the formulas are superdosed with Ca to ensure that the total absorbed amount of Ca is comparable or better than that of HM.

Page 11 line 20 Change “pH level” to “pH”.
Page 11 line 22. What is meant by the “bone health laboratory values” Is serum calcium really a good indicator of bone health?

Page 12 line 1: Change “values” to “difference”.

Page 12 lines 2-3. What is meant by outcomes? Please be more specific.

Page 12 lines 8-10: What is meant by the result is consistent with a targeted 25-OHD level. This sentence needs clarifying.

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

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this paper, either now or in the future? I have received research funding from a dairy company within the last 5 years

Do you hold or are you currently applying for any patents relating to the content of the manuscript? Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript? No

Do you have any other financial competing interests? No

Do you have any non-financial competing interests in relation to this paper? No