Reviewer’s report

Title: Maternal caffeine intake during pregnancy is associated with birth weight but not with gestational length: results from a large prospective observational cohort study

Version: 1 Date: 2 October 2012

Reviewer: Ina Santos

Reviewer’s report:

Review of the manuscript entitled “Maternal caffeine intake during pregnancy is associated with birth weight but not with gestational length: results from a large prospective observational cohort study”.

The authors present findings from a population-based cohort study aiming to assess the effect of maternal caffeine consumption from several sources (coffee, black tea, soft drinks, chocolate, etc) during pregnancy over child weight and age at birth. This is a very well conducted and analyzed study planned in a way to prevent most if not all the known potential limitations faced by researchers in the field of nutritional epidemiology: they employed a robust study design enrolling a huge number of mother/infant pairs; caffeine intake from several food sources was quantitatively assessed at real time (at three moments during pregnancy) affording the temporality of the association; and the analyses allowed for potential confounders, particularly maternal smoking in pregnancy.

Minor Essential Revisions:

1) Introduction, page 6, line 19 and 20: it seems to have an inconsistency between what the authors say on page 19 (“preterm delivery and to be small for gestational age at birth are “common” conditions) and on page 20 “low prevalences such as these…”. Common conditions should be frequent.

2) Methods, page 11, lines 14-16: this sentence is not clear.

3) Results, page 14, line 6: limits of the quartiles categories are confusing. Does the value 8.4 belong to the first or to the second quartile? Idem for value 40.7 in the second and third quartiles.

4) References, page 39, reference #62: authors’ names are lacking.

5) Table 2: the value 24.9 is present in two categories of the BMI variable.

6) Idem for values 7.9, 9.4, and 11.1 of the variable “Quartiles of energy intake in Mj” (Table 2).

7) Idem for caffeine intake groups on Table 7.

8) Because the infant birth weight outcome was calculated as the percentage of
the expected birth weight (3,600 g), it is not clear whether the results shown on Table 5 are controlled for gestational age at birth or whether only term infants were included in that analyses.

9) Table 7 should present p-value for the entire variable (“total caffeine intake groups”) in each column, instead of the p-values for each category of the variable.

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.