Reviewer's report

Title: RAS mutations in early age leukaemia modulated by NQO1 rs1800566 (C609T) are associated with second-hand smoking exposures

Version: 2  Date: 15 October 2013

Reviewer: Anthony V, Moorman

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Minor Essential Revisions

There are two typos in Table 2: (1) The number of RAS-wt mothers smoked 3 months before pregnant cannot be 2; (2) The MLL columns are incorrectly labelled.

Discretionary Revisions

The authors have revised the manuscript quite extensively as requested - thank you.

I have just two comments:

1) Regarding the multivariate modelling: the authors have chosen to present Chi-squared values from the log-likelihood ratio test comparing the main and sub-model. I would suggest presenting the actual ORs from the final model as I think they would be more informative.

2) I am still perplexed by the results obtained when the authors looked at the effect of the second-hand smoking. The under-reporting of smoking is obvious possibility but given the additional results presented especially for MLL-r cases this seems unlikely. I would still like to see a discussion of this topic in the actual discussion rather than just in the response to the reviewer.

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

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

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests