Reviewer's report

Title: Black tea extract prevents lipopolysaccharide-induced NF-kappaB signaling and attenuates dextran sulfate sodium-induced experimental colitis

Version: 1 Date: 31 May 2011

Reviewer: Rachel Marion-Letellier

Reviewer's report:

The objectives are well defined.

1. The supplier and the composition of the black tea extract are not mentioned. I think the lack of the BTE composition is an issue because it will help understand the potential compound responsible of the observed effect.

2. I think that the use of colon length as inflammatory marker is not appropriate. It will be better to determine colon length/weight as we generally found in the literature.

3. The number of rats or experiments should be mentioned in the figures.

4. There is a significant void of analysis from the in-vivo study.

5. Some data from in-vivo study should be perhaps presented in a more limited number of figures with panels.

6. To assess inflammation, measure of colon production of cytokines will be more relevant.

7. For histological analysis, representative slices in addition of the histological scores will be appreciated. Moreover, it will be more relevant to represent histological scores in scatter plots (instead of bars) because it allows seeing individual scoring results.

8. Figure 1 and 2 are good to provide representative gels, however it will improve the manuscript to also present this data in graph form as a measure of arbitrary density units with statistical analysis.

9. Figure 1: Number of experiments? Legends of the figures require more explanation. Did the first lane of the gel represent a control without LPS?

10. Figure 2: Number of experiments?

11. Figure 3: y axis should be a disrupted axis or started at 0%.

12. Figure 4: see above concerning the studied parameter.

13. Figure 5: In the legend, the sentence “DSS-exposed mice demonstrated significantly better colitis” is not appropriate.
14. Figure 6: There may be benefit from presenting this as measure arbitrary density units of replicate western blots?

DISCUSSION:
15. Discussion is poor: repetition of results, no explanation of potential mechanisms. No review of the literature. The discussion required to be extensively modified.

16. How BTE can interfere with NF-kappaB?

17. The sentence concerning BTE composition is not appropriate.

18. Extrapolation from experimental studies to IBD concerning the effects of BTE has to be modified.

19. Addition of a Model diagram of effects will be useful.

Level of interest: An article of limited interest

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"