Reviewer's report

Title: Piper betle induces phase II genes and proteins through Nrf2/ARE signaling pathway in mouse embryonic fibroblasts cells in culture

Version: 1 Date: 23 May 2013

Reviewer: Jeff Fry

Reviewer's report:

Major Compulsory Revisions - NONE

Minor Essential Revisions
I have indicated some of the more important grammatical issues in the list below, but the authors would be well advised to seek proofreading of the manuscript by a native English speaker with good awareness of correct grammar.

P4 – You can't have “transcriptional induction of...GSH”, although as stated later you can have transcriptional induction of the enzymes responsible for the synthesis of GSH. Reword.

P5 – Indicate the concentrations of penicillin-streptomycin and amphotericin-B used in the culture medium.

P8 – Indicate the post-hoc test used after the ANOVA.

P9, line 3 – Remove “it” (also P11, line 6 and line 16)

P9, 3 lines from bottom – “significantly expressed” is very clumsy. What I assume is meant is that, at the basal state, the level of expression of the SOD gene is significantly greater in N0 cells compared to WT cells. Reword as appropriate.

P10, line 5 of Discussion – Reword as “The study illustrated that Nrf2 deficiency in MEF cells...”

P10, line 9 of Discussion – [20] not (20)

P10, last 7 lines – Clumsy expression. Reword to clarify meaning.

P12, line 17 – Reword as “proximal cells.”

P13, line 5 – Replace “it is” with “were”.

P21, legend to Figure 1 – The figure itself shows no asterisks, so replace the statement in the legend.

Figure 1 – Express the x-axis values on a true linear scale.

Discretionary Revisions - NONE

Level of interest: An article of importance in its field

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