Reviewer's report

Title: The anticancer effect of saffron in two p53 isogenic colorectal cancer cell lines

Version: 1  Date: 8 December 2011

Reviewer: Wael El-Rifai

Reviewer's report:

This is an interesting study testing the effect of SAFFRON on HCT116 isogenic cells lines. The in vitro results are interesting. Future validation using in vivo models can provide insight in the clinical value of SAFFRON. Overall, this is a well written paper with several pieces of data that support the authors conclusion. There are few minor comments

- The Saffron induced DNA-damage and apoptosis in both cell lines. The role of Safron in +/- cells is clear. However, it appears that the effect, as noted by authors, is mild in HCT +/- cells. Perhaps, they need to address this with caution as the therapeutic end point in HCT +/- is not as clear and needs to be documented in future studies using long term assays and in vivo models. The Discussion and conclusion need to be tuned accordingly.

- Is p53 induced by Safron? Can the authors speculate on possibly other mechanisms that lead to induction of apoptosis in both p53 +/- and p53 +/- ? Could p73 play any role in HCT +/- ?

- The authors need to add the p value in the figures.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

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

Declaration of competing interests:

I declare that I have no competing interests