Reviewer's report

Title: Effects of ATRA Combined with Citrus and Ginger-Derived Compounds in Human SCC Xenografts

Version: 2 Date: 15 April 2010

Reviewer: Ulrich Rodeck

Reviewer's report:

This report by Kleiner-Hancock et al. describes the combined effects of all-trans retinoic acid (ATRA) and two different phytochemicals (ACA and AUR) on tumor progression of human SCC xenotransplants. In addition, data are presented in support of the hypothesis that orally administered ACA and AUR suppress LPS-induced NF-kappaB activity in mice. Overall the effects of ACA or AUR in combination with ATRA appear to marginally improve SCC tumor growth inhibition achievable by ATRA administration. While this effect appears to be statistically significant it is weak as shown by data presented in Figs. 3 and 4.

The authors speculate that a combination of inhibiting STAT3 and NF-kappaB activation in tumor cells may be responsible for the effects of the drug combinations in mice but do not provide data in support of this hypothesis.

The marginal beneficial effects of ACA and AUR when used in combination with ATRA reduce enthusiasm for the prospects of further developing this approach. The impact of the data shown is considered to be minor.

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