Reviewer’s report

Title: Daucus carota pentane-based fractions arrest the cell cycle and increase apoptosis in MDA-MB-231 breast cancer cells

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Reviewer: Kalpana Mujoo

Reviewer’s report:

The manuscript entitled “Daucus carota pentane based fractions arrest the cell cycle and increase apoptosis in MDA-MB-231 breast cancer cells’ by Shebaby et al describes anti-tumor activity of Daucus carota using standard pharmacological and biochemical methods.

Major criticism:
The present work seems to be the extension of the last part of the earlier work published in Phytotherapy Research in 2013. However, in the present study authors have evaluated the cell cycle arrest and apoptosis of cancer cell lines using various approaches. In order to study the efficacy of the compound in vivo, animal studies are strongly recommended.

Minor criticism:
Furthermore, cell lines listed in the figure legends do not match the figure headings. For instance, figure 1 shows the antitumor activity of various fractions in HT 29 and Caco 2 cells whereas figure legend describes them as MDA-MB-231 and MCF-7 cells. Similar discrepancy exists in Fig 4A where HT-29 should be listed as MDA-MB-231 and Figure 4B is completely missing.

Therefore manuscript should not be accepted in the present form.