Reviewer’s report

Title: Dissecting the signaling pathways associated with the oncogenic activity of MLK3 P252H mutation

Version: 1 Date: 26 September 2013

Reviewer: Giulia De Falco

Reviewer’s report:

Major compulsory revisions:

1) The experimental approach the Authors used sounds reasonable and well-planned. Nevertheless, the entire study has been conducted using one single cell line. Although the Authors explain the reason why they excluded colorectal cell lines from this analysis, still their findings would be strengthened if confirmed in additional cell lines.

2) The Authors have previously investigated the potential transforming effect of the P252H mutation in vivo, and have demonstrated that tumors arise in mice following injection of this mutant. Therefore, if tissue blocks are available from these mice, it would be interesting to compare the GEP obtained from the tumors with that obtained in vitro, in P252H-transfected cells. Overlapping in vitro and in vivo results would greatly reinforce their findings.

3) Analogously, performing GEP on colorectal cancer primary tumors carrying the same mutation would be important to confirm and reinforce their already interesting findings.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

Competing interests do not apply.