Reviewer's report

Title: A synergistic interaction between transcription factors nuclear factor-kappaB and signal transducers and activators of transcription 3 promotes gastric cancer cell migration and invasion

Version: 2 Date: 3 January 2013

Reviewer: brendan jenkins

Reviewer's report:

Minor Compulsory Revision:
1) Page 13, 1st paragraph, line 3 - correct epithelila to epithelial
2) page 15, last paragraph, last line, "our observations contrast with a report by Yang et al" reword this sentence as there is no evidence in this manuscript suggesting that STAT3 does not heterodimerize with RelA. In fact double immunofluorescence staining showed that pRelA and STAT3 co-localize in the nucleus.

Major Compulsory Revision:
3) I still believe it is important to address how NF-kB is regulating STAT3. Were appropriate controls, such as a known STAT3 binding partner (eg STAT1), used for the co-immunoprecipitation experiments? It is possible that STAT3 and RelA may not heterodimerize in human gastric cancer cells. Therefore, in addition a simple IL-6 qPCR and immunoblot on SNU-638 cells over-expressing IkBaM, to show a reduction in IL-6 expression levels will suffice to speculate that NF-kB may induce STAT3 activation through IL-6.

Level of interest: An article whose findings are important to those with closely related research interests

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

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

Declaration of competing interests:

I declare that i have no competing interests' below