Reviewer's report

Title: Poly I:C enhances cycloheximide-induced apoptosis of tumor cells through TLR3 pathway

Version: 1 Date: 9 July 2007

Reviewer: Massimo Tommasino

Reviewer's report:

General

In this manuscript, Jiang et al. have analysed the expression of toll-like receptor 3 (TLR3) in a large selection of cancer cells. The authors also showed that stimulation of TLR3 in two different cancer-derived cell lines, i.e. HeLa and MCA38, by the specific ligand (poly I:C) synergises with the protein inhibitor cycloheximide (CHX) in the induction of apoptosis. Inhibition of the TLR3-mediated pathway by incubation of the two cell lines with a specific TLR3 antibody significantly decreased the CHX-induced apoptosis.

The message of this short study is interesting and deserves publication.

-------------------------------------------------------------------------------

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

(A) To increase the weight of the study it is suggested to check the effects of poly I:C and CHX on the other cancer cell lines.

(B) The authors should also perform additional experiments using anti a/b interferon receptor to evaluate the possible involvement of the interferon pathways in TLR3-induced apoptosis.

-------------------------------------------------------------------------------

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

-------------------------------------------------------------------------------

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept without revision

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:**

I declare that I have no competing interests