Reviewer's report

Title: Clone-specific Expression, Transcriptional Regulation, and Action of Interleukin-6 in Human Colon Carcinoma Cells

Version: 1 Date: 25 October 2007

Reviewer: Harald Lahm

Reviewer's report:

General

The authors have investigated colon carcinoma cells for the presence of IL-6 mRNA and production of IL-6 protein. They have applied various drugs to modulated basal IL-6 production. IL-1 appeared to be effective in two cell lines. In addition, they have analyzed the IL-6 promoter for the presence of different polymorphisms. Finally they show IL-6 induced proliferation in Caco-2 accompanied by a concomitant upregulation of c-myc. However, the data do not support these statements in all instances.

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

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

For Caco-2 and COGA-1 it is indicated that clones derived from the respective cell lines have been used. What was the reason to use clones instead of cell lines? How representative are the results for these cell lines?

The production of IL-6 is determined by an ELISA with a detection limit in the pg/ml range. For Caco-2 and COGA-1 cells basal values of 4.86 and 5.49 pg/ml are measured, very close to the detection limit. In addition, both cell lines score negative in the PCR under these conditions. For me these values are not very convincing.

PCR analyses for IL-6 expression (Fig. 1): According to the presentation one gets the impression that these data have been obtained by performing a multiplex PCR. However, this contradicts the described method where different cycle numbers are indicated for IL-6 and CK8. How were these gels produced? In addition, negative controls should be shown in all cases.

Quantification of c-myc expression (Fig. 2B): The figure comprises a statement of densitometric evaluation in relation to CK8. No further details are given. I do not see how c-myc expression of three cell lines can be quantitated referring to one CK8 PCR (derived from which source?)

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

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?:** Reject because scientifically unsound

**Level of interest:** An article of limited interest

**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.