Reviewer’s report

Title: Local IGFBP-3 mRNA expression, apoptosis and risk of colorectal adenomas

Version: 1 Date: 13 November 2007

Reviewer: Marc C Winslet

Reviewer’s report:

General

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

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

The authors evaluated the association between tissue plasma IGFBP-3 and risk of colorectal adenoma or low apoptosis using real time RT-PCR and ELISA with morphological assessment of apoptosis. The authors report a modest correlation between plasma IGFBP-3 and tissue expression apoptosis. Tissue IGFBP-3 mRNA expression was lower in cases in adenomas than controls. As previously demonstrated lower apoptosis was associated with an increased risk of adenomas. Local IGFBP-3 mRNA expression however was inversely associated with apoptosis. The authors suggest that lower expression in normal colonic mucosa predicts an increased risk of adenoma but that IGFBP-3 may act as a pathway allowing apoptosis to influence this risk.

This is an interesting and timely study with significant research output from several centres. The groups used in this study are of appropriate magnitude to add weight to the scientific literature. The use of real time PCR in this study provides quantitative mRNA levels.

In several instances the authors describe statistical trends where there is no statistical significance. I think the wording of this should be revised.

The complicated results detailed in tables 2-4 should be better explained in the text and appropriate data should be highlighted in the results section that is then discussed in conclusions.

The authors suggest there is a modest positive correlation between plasma IGFBP-3 and tissue mRNA but the data also indicates that the plasma levels are not linked with disease state but tissue mRNA is. This requires elaboration and further explanation as it may complicate their subsequent argument.
Overall the discussion section is well written and appropriate as are the references.

The question posed by the authors is new and well defined. The methods are appropriate and in sufficient detail. The data is sound and well controlled. The manuscript adheres to relevant standards for reporting. The discussion and conclusion, with the caveats above is well balanced and supported by the data. The title and abstract accurately convey what is reported. The writing is acceptable apart from the use of the word trend in statistics.

Discretionary Revisions (which the author can choose to ignore)

**What next?:** Accept after minor essential revisions

**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 I have no competing interests