Reviewer's report

Title: Increased mRNA levels of interferon alpha receptor 2 is associated with metastasis of renal cell carcinoma

Version: 2 Date: 12 November 2006

Reviewer: Hiroaki Nagano

Reviewer's report:

General
This study demonstrates that expression of mRNAs as well as protein expression of IFN-α receptor type 2 (IFNAR2) in paired tumor and non-tumor samples from surgical specimen of renal cell carcinoma (RCC). The authors suggest that the relative value of tumor/non-tumor (T/N) but not absolute amount of IFNAR2 mRNA and IFNAR2 protein in tumor tissues was significantly correlated with the malignant and metastatic profiles of RCC. I found the findings presented in the study was very interesting to understand the relationship between the expression of IFNAR2 and the characteristics of RCC. However, the authors did not mention the rationale of their study thoroughly. Although it was considerable to the significant relationship between IFNAR2 expression and the response to the IFN treatment in RCC, no explanation and experiment about the malignant and metastatic profile was found. Furthermore they did not performed any experiment about the relationship about tumor migration, sarcomatoid change and subunit of IFNAR2, as mentioned in the discussion part.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1. The authors should cite more papers to show the character of IFNAR in other cancers but not in RCC.
2. The authors should explain why they choose the relative IFNAR2 expression of T/N in RCC, but not absolute amount of expression in this paper.
3. The authors should mention about the heterogeneity of the IFNAR2 protein expression.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
It is very difficult to understand the discussion part, because it was not written in the form of an original article, but an case report.

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: Needs some language corrections before being published

Statistical review: No