Reviewer’s report

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

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Reviewer: Manfred Johannsen

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The manuscript by Kamai et al. describes interesting findings related to the expression of interferon-alpha receptor 1 and 2 at the mRNA and protein levels in patients with renal cell cancer. The manuscript is of interest for the scientific community and the overall methodology used to produce the results is sound.

Several issues require clarification or minor revision:

The language is not adequate and the manuscript should be revised to eliminate numerous grammatical errors.

How many patients actually received systemic IFN therapy? How many of these were metastatic and how many locally advanced? The fact that adjuvant cytokine therapy for localized disease is not recommended (unless in specific studies) should be mentioned.

The prognostic value of IFNAR2 needs to be evaluated in further studies with larger patient numbers. This refers particularly to the notion of distinguishing between metachronous bilateral RCC from metastasis in the contralateral kidney on the basis of IFNAR2 expression, which was mentioned regarding one particular patient.

Figure 1D is confusing to the reader.

Figure 2: Control lanes with antibody only, but no cell lysates are useful to distinguish between actual antigen bands and antibody (e.g. rabbit IgG heavy chain band at approx. 50 kD, which may have been bound by the secondary antibody, mimicking antigen at 55 Kd). This may be problematic for cases in which antibody and antigen bands are approximately of the same molecular weight.