Reviewer's report

Title: Decreased GATA5 mRNA expression associates with CpG island methylation and shortened recurrence-free survival in clear cell renal cell carcinoma

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Reviewer: Christa Haldrup

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This study demonstrates that GATA5 mRNA is down-regulated in renal cell carcinoma and that for most tumor samples a gain in DNA methylation is correlated with decreased RNA expression. Furthermore, the authors find that for clear renal cell carcinomas there appears to be an association of decreased GATA5 mRNA expression with reduced time to recurrence.

The study is well written with clear goals and clear results, the only major concern is the low number of patients in the time to recurrence analysis (35 patients are noted as having follow up data in the materials and methods section).

Major Compulsory Revisions

1. Data for non-dichotomized GATA5 mRNA expression in the cox regression analysis should be shown.

2. The number of patients in the low and high GATA5 mRNA expression groups should be shown in figure 3.

3. In the discussion, the strength of the survival data should be discussed in relation to the number of samples included in the survival analysis.

Minor Essential Revisions

1. Figure 3 and Table 3 are labeled as Figure 2 and Table 2

2. In Table 1, there appears to be a mistake in the calculations of percentages.

3. For the logistic regression analysis please state all clinicopathological parameters tested.

4. In table 3 there is a typo in lymph.

Discretionary Revisions

1. Inclusion of more samples in the RFS analysis would greatly improve the manuscript.
2. In the few patient samples where methylation and RNA expression are not correlated, it would be interesting to see whether transcription from alternative transcription start sites plays a role.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.