Reviewer’s report

Title: Limited utility of qPCR-based detection of tumor-specific circulating mRNAs in whole blood from clear cell renal cell carcinoma patients

Version: 1 Date: 26 Dec 2018

Reviewer: Glen Kristiansen

Reviewer's report:

The authors undertake the important task to identify blood based markers for clear cell renal cell carcinomas. In their approach they first conducted a careful and extensive analysis of publicly available data sets to identify candidates that are highly over expressed in ccRCC and at the same time non-abundant in peripheral blood. Then a verification of expression using a small set of ccRCC tissues with matching normal tissues was conducted. They finally assembled a list of nine candidates, which were finally on transcript level in peripheral blood. The surprising result is the general negativity of transcripts found and even more so the significant downregulation of two transcripts in ccRCC patients.

This paper's topic is timely and clinically relevant, the paper is well written and the results are clearly described. The experiments appear to be conducted in a state of the art manner, even though the number of cases analyzed in the wet lab is small. I advocate publication of this work.

Major points: none.

Minor points: I personally find the discussion a bit too long, I feel it would benefit from shortening.

Please confirm that you have included your review in the ‘Comments to Author’ box?

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- Are the description of any error bars and probability values appropriate?
- Are all error bars defined in the corresponding figure legends?
- Has a sample size calculation been included, or a description and rationale about how sample sizes were chosen?

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