Reviewer's report

Title: Somatic mutation analysis of MYH11 in breast and prostate cancer

Version: 2 Date: 17 July 2008

Reviewer: Malek Faham

Reviewer's report:

On the question of normal tissue contamination, even though it is clear that one can detect mutations in samples with 50% or more contamination, there are some caveats. It is not clear how the sensitivity of detection is affected by the level of the mutation. Particularly given the manual aspects of the checking process, the sensitivity can change from lab to lab and operator to another. I wish it would be possible to quantitate better the statement “from our experience one can detect mutations as low as 30-50%”. So how well is that done using the same process and manual checking procedure as done in this manuscript (from example using spiking experiments). I think this is particularly relevant since the paper rests on the negative result that no mutations were found. At a minimum, I think the authors should add a bit more details on the % cellularity of tumors to provide a loose measure of the confidence in the sequencing results. For example they can point to the percentage of tumors with (for example) >80% and 50% cellularity to indicate the percentage of tumors with high and medium level confidence.

I believe this is a minor change that the authors can do on their own.

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.

Declaration of competing interests:

I declare that I have no competing interests