Reviewer’s report

Title: An exfoliation and enrichment strategy for clinical tissue procurement results in improved transcriptional profiles when compared to matched fixed and frozen samples.

Version: 1 Date: 23 April 2007
Reviewer: John W Gillespie

Reviewer’s report:

General
The authors examine the efficacy of an alternative method of cell acquisition instead of laser microdissection as well as using viable cells instead of snap-frozen or FFPE tissue for the gene expression analysis. The study is very well designed; however, the conclusions are not appropriate.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
The authors need to re-consider their conclusions. I think that this may be recommended as an alternative to microdissection for tissues where there is difficulty specifically dissecting cells. They state that the method of cell exfoliation is superior to FFPE which is true in that exfoliated cells have superior preservation of RNA. The problem is comparison to snap-frozen tissue. In the case of frozen, RNA is well-preserved; however, is better representative of the gene expression profile in vivo than the exfoliation technique. The problem with the exfoliation technique is that the cells are viable through the procurement with scraping and preparation using magnetic beads. This will cause deviation of gene expression from that seen in vivo. The authors need to discuss these points.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
Page 4, bottom line should read, "other procurement method for comparison."

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

Quality of written English: Not suitable for publication unless extensively edited

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