Reviewer's report

Title: Microarray analysis of RNA extracted from formalin-fixed, paraffin-embedded and matched fresh-frozen ovarian adenocarcinomas

Version: 2 Date: 14 January 2009

Reviewer: Giorgio Stanta

Reviewer's report:

The manuscript is well written, but minor modifications of the manuscript are needed:

Specific comments.
1. Methods, pg 4: The authors report that fixation was performed in 10% buffered formalin for 4-18 h at 4°C. These are not the routinely conditions for fixation. In clinical practice formalin fixation is performed rt for 12-24h. As a consequence the usual RNA quality in FFPE specimens is not represented by this study. Sample 390, that was classified as inadequate for RNA quality, could be a normal specimen among routinely processed specimens. At this point there are two possibilities:
   a. to test routinely fixed FFPE and compare their quality with those you reported in the study
   b. to discuss in the manuscript the possibility to have different quality in routinely fixed FFPE specimens.
2. I suggest including a table with RIN numbers for the analysed specimens, both FF and FFPE (Ambion and Agencourt).
3. Fig. 2: considering the CLDN3 products it seems that Ambion system gives better results in RNA quality. Please comment it in the text.
4. Fig. 2: I suggest having the same specimens in the three groups: delete sample 390 in FF and FFPE-Agencourt or include (if possible) sample 390 in FFPE Ambion.
5. Discussion and references: up to now different papers have been published on the use of microarray platforms in FFPE. One of these compares the use of microarray platform in FFPE and fresh tissues from colorectal cancers. Since the study design is similar to your own I suggest commenting and including it in your discussion and references: Lassmann S et al, A novel approach for reliable microarray analysis of microdissected tumor cells from formalin-fixed and paraffin-embedded colorectal cancer resection specimens. J Mol Med 2008 Dec 6. DOI 10.1007/s00109-008-0419-y.

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

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests.