Reviewer's report

Title: Transcriptional Profiling of Degraded RNA in Cryopreserved and Fixed Tissue Samples Obtained at Autopsy

Version: 1 Date: 18 July 2006

Reviewer: Azorides R Morales

Reviewer's report:

General
The authors report their experiment aimed at determining the differences in gene expression at RNA level when studying matched frozen and FFPE autopsy tissue analyzed by the innovative method known as cDNA based-Annealing, Selection, extension and Lygation (DASL), which was created by ILLUMINA, San Diego, CA. They showed suitability of RNA isolated from frozen samples by assessment of RNA quality and amplification of ribosomal gene RFPL13a by real-time PCR and DASL array. However, all the FFPE samples were severely degraded and therefore, the study reiterates that FFPE does not provide reliable materials for gene expression analysis.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Although this report has sound technical data and is presented in a well ordered fashion, there are some points that may require further attention:
1- In the method section (pages 5-6): RNA extraction procedure from frozen tissue is described in detail. However, there is not a detailed procedure description for RNA extraction from FFPE tissues, just a reference to a kit from ROCHE. I believe that this is an important point since the main focus of this paper concerns the gene expression analysis of RNA extracted from FFPE tissue. It would be more orienting and helpful for readers to capture a full picture of this procedure. Methods for RNA extraction from fresh tissue or cells are well known but, from fixed tissues are still under scrutiny.
2- Description of the array platform does not fully explain the microarray procedure and analysis.
3- There is no validation test(s) for the microarray results.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

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

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests