Author's response to reviews

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

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Author's response to reviews: see over
Dear Editor,

Please find enclosed a manuscript entitled ‘Microarray analysis of RNA extracted from formalin-fixed, paraffin-embedded and matched fresh-frozen ovarian adenocarcinomas’ for your review and submission to *BMC Genomics*.

Microarrays can reveal unprecedented information from archival clinical FFPE specimens, especially, if standardized methodology for obtaining high quality data is well established. In this manuscript, we define how to profile FFPE samples in order to obtain reliable gene expression data and, therefore, set a standard for future FFPE microarray profiling studies. In particular, we report on several novel findings including:

1) Selection of the optimal RNA extraction methods

2) Development of RNA quality control metrics

3) Usage of Z-score analysis for paired sample comparison

4) Identification of ovarian adenocarcinoma markers

Briefly, we selected the best two RNA extraction methods to obtain RNA from clinical FFPE samples. We then developed quality control metrics that is capable of distinguishing adequate from inadequate FFPE samples. Following gene expression profiling, we used Z-score analysis to reveal the extent of correlation between matched FFPE and fresh-frozen samples. Finally, by comparing tumors to normal samples, we confirmed some known markers of ovarian carcinoma, thus, validating the method, and identified potentially novel markers, highlighting the diagnostic value of genome-wide expression profiling of FFPE samples.
We hope you will appreciate the importance of this work and, thus, will consider it for publication in *BMC Genomics*. We are not aware of any competing interests related to this work. Please, do not hesitate to contact us if you have any further questions or require further clarification.

Sincerely,

Zora Modrusan