Author's response to reviews

**Title:** Metabolic markers GAPDH, PKM2, ATP5B and BEC-index in advanced serous ovarian cancer

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Dear Editor,

RE: MS: 1662133012100622 – Metabolic markers GAPDH, PKM2, ATP5B and BEC-index in advanced serous ovarian cancer:

Thank you for your positive response and the reviewers valuable input to our paper! Below please find our response to the reviewers’ suggestions:

Reviewer 1:

1. In the abstract the authors write that 57 patients met the eligibility criteria. In the methods section and Figure 1 the study population consists of 56 patients. Response: 57 patients met the eligibility criteria. An adequate amount of mRNA could be extracted in all but one case, with a resultant study population of 56 patients. This has now been clarified also in the abstract, line 10-11.

2. In the result section on page 10 first line the authors write that 18 patients had a tumor PKM2 mRNA expression of less than 0.70. The authors should indicate what they mean by “tumor PKM2”. In some papers tumor PKM2 is the abbreviation of the dimeric form of PKM2.” Response: As a protein, PKM2 exists as monomers, dimers and tetramers. Unfortunately, the immunoreactive staining does not provide any information whether the enzyme present is in its dimeric or more glycolytically active tetrameric form. This has now been made clear in the results section, page 9/PKM2.

Reviewer 2:

The paper is well written and data are clear and interesting. However, the importance of this work is limited by the low number of cases studied and by the fact that no statistical significance was found in PFI and overall survival with protein determinations. This discrepancy should be explained in more detail in the discussion section.
Response: The apparent discrepancy between our GAPDH mRNA and protein data can have several explanations, e.g., the limited sensitivity of immunohistochemistry in detecting smaller differences in expression. This concern has now been addressed in the discussion section, 4th paragraph.

We hope to have succeeded in clarifying the questions raised.

Yours sincerely,

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