

Dear Dr. Dou,

Thank you very much for your email in regards to the Manuscript NO 50810. We tremendously appreciate you and the reviewers taking time to read the paper and provide us with suggestions for improvement. Please allow me to address each point separately:

- 1. Comment: “The histologic figure is not sufficient. Sarcomatoid carcinomas may create diagnostic difficulties for pathologists. Please provide: a) an H&E figure at higher magnification to better highlight the pleomorphic cell component; b) PD-L1 immunohistochemistry with unequivocal tumor cell PD-L1 expression; c) cytokeratin 7 immunohistochemistry (possibly diffuse expression; otherwise, a picture with cytokeratin 8-18 staining). In addition, at least a marker of mesothelial differentiation should be tested.”**

Dear Dr. thank you very much for your comment. We provided a) the H&E figure with higher magnification, b) the PD-L1 immunohistochemistry and c) the cytokeratin 7 immunohistochemistry. We also provided the markers of mesothelial differentiation, specifically D2-40, CK 5/6 and Calretinin. Kindly let us know if you would like us to make further changes.

- 2. Comment: “CT scans should be better organized (for example a time-line) and possibly at the same CT scan level.”**

Thank you very much for your comment. We added the CT scan post 5 cycles of pembrolizumab, which shows the marked decrease in the size of the tumor mass.

- 3. Comment: “The discussion is somewhat redundant, especially where EGFR inhibitors are dealing with. Please shorten it.”**

Thank you very much for your comment. We have shortened the discussion a bit; however, we still consider it is important to discuss about EGFR inhibitors, since some of the mutations they target were negative in our patient. Kindly let us know if you want us to shorten the paragraph even further.

- 4. Comment: “Have ALK and ROS1 mutations been studied?”**

Thank you very much for your comment. Anaplastic lymphoma kinase (ALK) and receptor tyrosine kinase (ROS) translocations were not performed since EGFR and KRAS mutations, both of which were performed, are mutually exclusive with these translocations.

5. Comment: “All abbreviations have to be defined (e.g. PSA)”

Thank you very much for your comment. We tried to define all the abbreviations. Please inform us if any further work is needed.

Please also note that we’ve included Dr. Svetoslav Bardarov as one of the authors for the paper, given that his contribution to the paper does qualify for authorship.

It is our hope we have properly addressed your suggestions. Should that not be the case, we would be more than happy to further revise the manuscript.

With best regards and highest consideration,

Emaneula Cimpeanu, MD