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Paper number: COMMSMED-23-0509B

Communications Medicine

Title: Computational pathology identifies immune-mediated collagen disruption to predict clinical outcomes in gynecologic malignancies

## Dear Reviewers,

Please find enclosed a revised version of our manuscript “**Computational pathology identifies immune-mediated collagen disruption to predict clinical outcomes in gynecologic malignancies**”. The modifications introduced in this new version have been color-coded to facilitate comparison with the original submission. Specific responses are in dark red italics while modifications to the manuscript are in blue.

We believe we have addressed the comments and have updated our manuscript accordingly. Detailed responses are outlined below. We hope that this new version satisfactorily addresses the concerns. Thank you for your consideration.

Best regards,

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Youtube Video: [https://tinyurl.com/y987ghao](https://nam11.safelinks.protection.outlook.com/?url=https%3A%2F%2Ftinyurl.com%2Fy987ghao&data=05%7C01%7Carpit.aggarwal%40emory.edu%7C15b832cfb9774261cf9c08dba0d958c4%7Ce004fb9cb0a4424fbcd0322606d5df38%7C0%7C0%7C638280627629259992%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=MzuwIp6P%2FrLi8m67eEUTmsMYWm%2BrUG298gKTqdZZ660%3D&reserved=0)

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**Reviewer #1 (Remarks to the Author)**  
“*The study of Aggarwal et al. gained clarity during the first revisions. The implementation of pathologist is highly appreciated. However, there are still some minor points to be considered*”  
**- Comment 1:“***Figure 1 would profit from examples of real life heatmap CollaTil images aside the schematic view***”**

Response 1: We appreciate the reviewer's input on improving Figure 1 for the paper. We have removed Figure 1 from main manuscript as there is no figure allowed in the Introduction section of the paper.

**- Comment 2:“***Figure 8 about cell lines seems a little bit out of topic as the complexitiy of the TME is not reflected by cell lines only. This information could go into supplemental*”

Response 2: We appreciate the reviewer’s comment. We have moved Figure 8 of the main manuscript to the supplementary information file.

**- Comment 3*:* “***Instead of this supplemental figure1 could enter the main manuscript.***”**

Response 3: We appreciate the reviewer’s comment. We have moved supplementary figure 1 to the main manuscript.

**- Comment 4: “***The same could be discussed with tables. From a personal point of view, feature tables should be with the main text, but the cohort description could enter the supplemental.****”***

Response 4: We have moved the feature tables to the main manuscript and the cohort description to the supplementary information file.