Paper number: COMMSMED-23-0509-T

Communications Medicine

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

## Dear Dr. Yuri Tolkach,

Please find enclosed a revised version of our manuscript “**Computational pathology identifies immune-mediated collagen disruption to predict clinical outcomes in gynecologic malignancies**”. We appreciate the reviewers’ and editors’ comments, which have helped us to substantially improve the quality of the manuscript. 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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**Summary of Changes**

**Main manuscript and Supplementary Information files**

* Changed the title as recommended by the editor to “**Computational pathology identifies immune-mediated collagen disruption to predict clinical outcomes in gynecologic malignancies**”.
* Changed author affiliations to the format “**University, City, Country**”
* Changed abstract in the format as recommended by the editor
* Added “**Plain language summary**” section
* Changed “**Main**” heading to “**Introduction**” heading
* Removed “**Figure 1**” from the text as no figures are allowed in the Introduction section. This also follows with what Reviewer 1 recommended.
* Moved “**Methods**” section before “**Results**” section
* Moved subsections “**Patient populations for the study**” and “**CollaTIL framework**” in the “**Results**” section to “**Methods**” section
* Moved subsections in “**Methods**” section, “**Patients and specimens**”, “**Epithelium and stroma segmentation**”, “**Nuclei segmentation**”, “**TIL identification**”, and “**CollaTIL feature extraction**” to Supplementary Methods due to repetitive information
* Moved “**Table 1**” to Supplementary Information file as recommended by Reviewer 1
* Moved “**Supplementary Table 1**” to main text as recommended by Reviewer 1
* Moved “**Figure 8**” to Supplementary Information file as recommended by Reviewer 1
* Updated “**Data availability**” section
* Updated “**Code availability**” section