Penn Engineering

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Fwd: Editorial Decision on Cell Reports manuscript CELL-REPORTS-D-20-04331R1

22 messages

Vivek Shenoy <vshenoy@seas.upenn.edu> Mon, Mar 15, 2021 at 7:34 AM
To: Ze Gong <gongze@seas.upenn.edu>

Sent from my iPad

Begin forwarded message:

From: Cell Reports <em@editorialmanager.com>
Date: March 15, 2021 at 7:15:40 AM EDT
To: "Vivek B. Shenoy" <vshenoy@seas.upenn.edu>
Subject: Editorial Decision on Cell Reports manuscript CELL-REPORTS-D-20-04331R1
Reply-To: Cell Reports <reports@cell.com>

Dr. Vivek Shenoy
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Recursive Feedback Between Matrix Dissipation and Chemo-mechanical Signaling Drives Oscillatory Growth of Cancer Cell Invadopodia
CELL-REPORTS-D-20-04331R1

Mar 14, 2021

Dear Dr. Shenoy,

I am pleased to let you know that, based on your revisions and the reviewer comments below, your manuscript has now been “accepted in principle” as a Research Article at Cell Reports. Reviewer #1 has some remaining minor comments that we ask you to address and provide your responses to with the revised paper.

Before we can formally accept your manuscript, we require that the final files are uploaded according to our production guidelines as outlined in our Final Files Checklist. We would like to have your final materials within 10 days, but please let us know if you think that you may need more time. Once we receive your final files, we can move forward with accepting your manuscript and scheduling it for publication.

Please note that our article length guidelines have been recently adjusted to reflect that references are no longer counted towards the overall character count of the manuscript. The revised manuscript should conform to the general length restriction for a Research Article, which is **45,000 characters** (including spaces and figure legends) and no more than **7 figures and/or tables**. This count does not include STAR Methods or any supplemental legends, or the reference list. There is some flexibility here, so please contact us to discuss this further.

The Methods section is currently not entirely formatted according to our STAR Methods guidelines. Please be sure that the STAR Methods section is in the main Word document and appears after the figure legends. **Note that there should be no supplemental references section.** Please combine the supplemental references with the main references list.

STAR Methods follow a standardized structure. You can consult the STAR Methods website for further details and for the Key Resources Table template. You may also create the Key Resources Table using this interactive webform. **Please email me with any questions (r.gemayel@cell.com).**

Please also pay attention to the following points when preparing your revised paper. **I also recommend that you go through the full checklist and guidelines below to prevent delays in publication.**

- To avoid errata, you should double check all files carefully and ensure that all figure panels are accurate.
- **Author names cannot be corrected later, thus you should ask all co-authors to carefully check the spelling of their names.**
- Please make sure that the summary is no longer than 150 words and written in the present tense.
- Please indicate on the title page of the manuscript which author will be serving as the Lead Contact, the person who will be the lead communication contact for the journal, including after publication. The Lead Contact should match the corresponding author identified within Editorial Manager. She or he is the arbiter of decisions and disputes and is responsible for responding to reagent and resource requests unless otherwise specified in the Experimental Procedures section. The Lead Contact can choose another author to communicate with us during the production process (copyediting and proofs). For more information on the responsibilities of Lead Contact, please refer to our Information for Authors page.
- Please submit the main-text figures in individual high resolution files (TIF or high resolution PDF) and ensure that microscopy images are at least 300 pixels per inch at final print size. For clear and accurate presentation of your data, we strongly recommend a vector graphics program (such as Adobe Illustrator or Inkscape) to assemble the figures and verify that at final print size, each displayed image is at least 300 pixels per inch. Note that programs such as Word or Powerpoint often reduce the resolution of primary data images and this should be checked carefully before resubmission.
- Please avoid overcontrasting microscopy images, and ensure the background signal accurately represents the raw data.
- All figures that include microscopy images should include scale bars.
- Figure legends should include information on biological and technical replicates, where applicable
- We routinely implement post-accept figure checks for papers at Cell Press. Thus, we may need to see the original data (uncropped, unlabeled images) for your figures. If so, I'll be in touch with specific instructions. Please ensure you have all raw data underlying the figures quickly accessible in case this is necessary.
- Please ensure that the Supplemental information (figures, tables, and legends) is uploaded as a single PDF file.
- The supplemental section should be organized so that the relevant figure legend is placed beneath each Supplementary figure.
- Each Supplemental figure or table should be linked to at least one main-text figure or table, and/or to the STAR Methods. This is indicated in the legend for the Supplemental figure; for example, "Figure S1. Flies lacking YFG do not exhibit changes in grooming behavior. Related to Figures 1 and 3." Every Supplemental figure must be cited at least once in the main text.
- For the non-PDF supplemental items (i.e movies), please create a section at the end of the main text document and list the titles, legends (if available) and 'related to' information.

- **Some changes are required to the supplemental text (currently present at the end of the Supplemental Items PDF):**

  1. Please rename the section containing the supplemental text as 'Methods S1', and it should be part of the combined Supplemental Information PDF, at the very end, following the figures.

  2. Methods S1 must have a descriptive title and related to information, such as "Methods S1: MATLAB scripts, related to STAR Methods."

  3. Methods S1 should be linked from the "Method Details" section of STAR. e.g. For details on XXX used for XXX, see Methods S1: title of document, related to STAR Methods.

- Please submit the Highlights and eTOC blurb as a separate Word document. And please also ensure that only one copy of the Graphical Abstract is uploaded to the system. Please ensure the graphical abstract is the correct size and shape (1200 pixels square at 300 dpi), avoids field-specific abbreviations and that any text included can be read at final size. Please refer to our author guidelines for information on these items and our graphical abstract guidelines for more details and recommendations.
- Please download a copy of our Declaration of Interests form, fill it out electronically, and upload the form as a submission item along with your final submission. We also ask that declarations stated on the form, including declarations that confirm there are no competing interests, be included in the manuscript in a section titled "Declaration of Interests" preceding the References section.
- "Please download a copy of our Inclusion and Diversity form, fill it out electronically, and upload the completed form as a submission item along with your final submission. For more information, please see our Author Guidelines and FAQ page."

The Final Files Checklist is provided to make sure your paper complies with our guidelines and everything is in order. We suggest having multiple authors review the checklist and revised materials to ensure that all items are complete. If you have any questions about any of the points in the final file checklist, please email us at reports@cell.com.

Please upload your final files to our https://www.editorialmanager.com/cell-reports/ as a revision of CELL-REPORTS-D-20-04331R1. When you submit your revised files, our team will check them and will contact you if there are any remaining formatting issues that need to be resolved. We will also share any editorial comments on the revised files at this point.

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Please note that your paper is not formally accepted at this stage and cannot be until we receive the materials listed above. Please let me know if you have any questions, and I look forward to hearing from you.

Sincerely,

Rita Gemayel, Ph.D.
Associate Editor, Cell Reports

Reviewer comments:

Reviewer #1: The authors have done a good job addressing previous comments. A few additional comments should be addressed prior to publication, especially to better tie in this work to recent highly relevant studies and to discuss applicability of the findings to realistic tissue microenvironments.

1) Some recent studies have shown the importance of dynamic cell protrusions and ECM kinetic properties on ECM remodeling. These are highly relevant to this study and should be incorporated into the discussions and cited. For example, (Malandrino et al. 2019: doi.org/10.1371/journal.pcbi.1006684) showed that dynamic cell protrusions lead to densification of ECM in the cell vicinity in a manner dependent on cytoskeletal dynamics, including actin nucleation. (Ferrari et al. 2018: doi.org/10.1038/s41467-019-12930-y) showed that actin protrusions, driven by Arp2/3 and coupled with MT1-MMP, lead to widening of ECM pores. (Mak 2020: doi.org/10.1016/j.csbj.2020.11.038) showed that ECM crosslink kinetics, especially heterogeneity in unbinding kinetics, plays important roles in facilitating ECM densification and sustaining tension in ECM networks.

2) The ECM is not only nonelastic, but also has nonlinear elastic properties and is highly heterogeneous in physiological microenvironments, including various topographies that can guide protrusions, as reviewed in (A. Malandrino et al. 2018: doi.org/10.1016/j.eml.2018.02.003). How these complex features will impact the model predictions or can be reconciled by the model and the relevance of the model to cell responses in realistic tissues should be discussed.

Reviewer #2: The authors have done an outstanding job in answering the reviewer questions and criticism. There is an impressive amount of added data and the responses and explanations are really detailed and comprehensive. I have no further comments, but want to congratulate the group for this interesting study.