Peer Review Information

Journal: Nature Genetics **Manuscript Title:** A spatially resolved atlas of the human lung characterizes a gland-associated immune niche **Corresponding author name(s):** Dr Kerstin Meyer

Reviewer Comments & Decisions:

Decision Letter, initial version:

5th Aug 2022

Dear Dr. Meyer,

Thank you for submitting your revised manuscript "A spatial multi-omics atlas of the human lung reveals a novel gland-associated immune niche" (NG-A60673-T). It has now been seen by the original referees and their comments are below. The reviewers find that the paper has improved in revision, and therefore we'll be happy in principle to publish it in Nature Genetics, pending minor revisions to comply with our editorial and formatting guidelines.

I think this is the fastest accept-in-principle decision I've ever been able to give an author!

If the current version of your manuscript is in a PDF format, please email us a copy of the file in an editable format (Microsoft Word or LaTex)-- we can not proceed with PDFs at this stage.

We are now performing detailed checks on your paper and will send you a checklist detailing our editorial and formatting requirements soon. Please do not upload the final materials and make any revisions until you receive this additional information from us.

I'm very pleased at this happy outcome!

Sincerely,

Safia Danovi Editor Nature Genetics

Reviewer #1 (Remarks to the Author):

The authors have satisfactorily addressed all of my comments.

Reviewer #2 (Remarks to the Author):

This paper represents an analysis of unique human lung environments vial a multi-omics approach. The edits to the paper in response to the original reviewer comments do clarify the comparisons and provide a more nuanced discussion. It is appreciated that the murine studies did not identify an IgA SMG niche which certainly limits the functional analyses possible. While the paper remains largely descriptive, it does annotate some interesting niches of the human lung, which as pointed out by the authors are likely to be a springboard for the higher resolution studies in the future. It also has better discussion related to disease relevance.

Reviewer #3 (Remarks to the Author):

I'm comfortable with the response of the authors to original critique. I think they address all of my concerns. I'm fully supportive of publication of this paper.

Author Rebuttal to Initial comments

None

Final Decision Letter:

25th Oct 2022

Dear Dr. Meyer,

I am delighted to say that your manuscript "A spatially resolved atlas of the human lung characterizes a gland-associated immune niche" has been accepted for publication in an upcoming issue of Nature Genetics.

Over the next few weeks, your paper will be copyedited to ensure that it conforms to Nature Genetics style. Once your paper is typeset, you will receive an email with a link to choose the appropriate publishing options for your paper and our Author Services team will be in touch regarding any additional information that may be required.

After the grant of rights is completed, you will receive a link to your electronic proof via email with a request to make any corrections within 48 hours. If, when you receive your proof, you cannot meet this deadline, please inform us at rjsproduction@springernature.com immediately.

You will not receive your proofs until the publishing agreement has been received through our system.

Due to the importance of these deadlines, we ask that you please let us know now whether you will be difficult to contact over the next month. If this is the case, we ask you provide us with the contact information (email, phone and fax) of someone who will be able to check the proofs on your behalf, and who will be available to address any last-minute problems.

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I'm absolutely delighted to be publishing this paper. It's been a pleasure working with you and I hope we'll get another chance to do so in the future.

Sincerely,

Safia

Safia Danovi Editor Nature Genetics

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