***Response to Reviewer #1***

*The authors went through great length to address all the points I raised, and I think, also based on the other reviewers' comments, the manuscript has much improved. As such, I believe the manuscript can now be accepted as is.*

***Response****:* We are happy the reviewer agrees that the concerns have been successfully addressed, and are grateful for their help in significantly improving the manuscript.

***Response to Reviewer #2***

*All my comments have been addressed. Congratulations to the authors for the great work.*

***Response:*** We appreciate the reviewer’s kind words for our manuscript, as well as their efforts and insightful comments during the review process.

***Response to Reviewer #3***

*I'd like to thank the authors for making the effort to address my concerns. Most of my concerns have been addressed. I have two minor points:*

*1. The authors have added Seurat results on Stereo-seq data in Supplementary figure 2a with different resolution parameters. But it is not mentioned or discussed in the manuscript what happens when changing the resolution.*

*2. Apart from Supplementary figure 2a, some other supplementary figures are not cited in the manuscript.*

***Response:***  We thank the reviewer for these comments. We have added text to note that the observations do not change when altering the resolution parameter at Line 285-288 on Page 13 with track changes. We have added descriptions and citations in the manuscript for all Supplementary Figures in the main text at Line 192-193 Page 9, Line 250-252 Page 11, Line 368-370 Page 16, Line 622-624 Page 26 using track changes.­­