

July 5, 2016

Joan Heath, Ph.D., Academic Editor, PeerJ

Dear Dr. Heath,

We thank the reviewers for their positive comments regarding the unique nature of the lung development data set we describe in our manuscript submitted to PeerJ for consideration of publication, "*Temporal dynamics of the developing lung transcriptome in three common inbred strains of laboratory mice reveals multiple stages of postnatal alveolar development*". We have revised the manuscript and generated additional data address the points raised by Reviewers #1 and #2. We also have addressed the technical changes to the manuscript/submission. These revisions are submitted on behalf of all authors. The responses to the reviewer comments are summarized below:

Reviewer #1 comment

In the discussion, could the authors comment on the differences in the data generated by their approach and the data available on <http://www.lungmap.net> where RNAseq expression data of lung specific cellular population in late stages of development are available?

Response: As suggested by the Reviewer, we have added extensive comments regarding the data set described in this manuscript relative to the lung data available from the lungmap web site in the Discussion section.

Reviewer #2 comment

The study used very small numbers of embryos (3 or 4) or mice (3/grp/time point) and many time points so false discovery is possible as well as false negatives. Consider a qPCR validation of limited genes sets that were uniquely expressed by Strain X and time point Y for validation.

Response: Our study was designed to balance depth of sampling with breadth of coverage in order to detect global patterns of gene expression within the constraints of the financial resources available for the work. To address the very valid concerns of Reviewer #2 we performed qPCR validation for several genes that had strain specific patterns of expression. We have added the methods and results for the qPCR validation to the manuscript. The results of the qPCR are presented in supplemental Figure S11 and supplemental Table S2, which have been uploaded to the PeerJ site.

Technical change #1 – Authorship

Co-author Dr. Isaac S Kohane has confirmed co-authorship.

Technical change #2 – Manuscript source file

We have submitted the revised manuscript as a .docx file.

Technical change #3 – citation for Figure 6

We revised the manuscript and added the citation to Figure 6.

Technical change #4 – Correct figure orientation

We have uploaded figures in the correction orientation.

With this resubmission we believe we have addressed the concerns of the reviewers and have made all of the necessary changes in response to the review by the technical editing team at PeerJ. Please do not hesitate to contact me if there are additional questions regarding our manuscript. Please note that Dr. Joel Graber and I should be listed as equal co-authors on this manuscript. In the review pdf for the revision this shared senior authorship was not indicated.

Sincerely,

