Reviewer's report

Title: Absolute measurement of the tissue origins of cell-free DNA in the healthy state and following paracetamol overdose

Version: 1 Date: 18 Jun 2019

Reviewer: Xiujuan Qu

Reviewer's report:

The authors performed the first direct, absolute measurement of the tissue origins of cfDNA, using tissue-specific knockout mouse strains, in both healthy mice and following paracetamol (APAP) overdose. They present a novel method for measurement of the tissue origins of cfDNA in healthy and disease states and demonstrate the potential of cfDNA in APAP overdose. It's an interesting and meaningful work.

1. The author showed data Total cfDNA increased in clinical samples from APAP overdose patients with biochemical evidence of liver injury. If they can show the changes of cfDNA after treatment, the results will be more meaningful.

2. Please give more information about the detection of the liver-specific methylation fragments in human cfDNA.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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