Reviewer's report

Title: LncRNATUG1 alleviates sepsis-induced acute lung injury by targeting miR-34b-5p/GAB1

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Reviewer: Saroj Nepal

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The manuscript "LncRNA TUG1 alleviates sepsis-induced acute lung injury by targeting miR-34b-5p/GAB1" by Qui et al has shown that TUG1 alleviates sepsis-induced inflammation and apoptosis via targeting miR-34b-5p and GAB1. The manuscript is written well and is interesting. However, I have some concerns:

1. Change in TNF-alpha and IL-6 does not seem significant. Will this change be physiologically relevant (Fig. 2D)? What is the mechanism through which mRNA levels have altered between the groups (Fig. 2C)? It would be better to discuss these aspects.

2. The authors have used a very high dose of LPS 1 mg/ml for their experiments in vitro. What is the rationale behind this dose?

3. The authors have only measured pro-inflammatory cytokines. They should measure anti-inflammatory cytokines such as IL-4, IL-10 also to strengthen their conclusions.

4. The prediction analysis needs to be shown which will help better understand why miR-34-5p was chosen as a potential target for TUG1.

5. What happens to GAB1 expression in TUG1 adenoviral vector injected group in CLP model needs to be performed. The authors directly jump into Fig. 5 and suggest GAB1 as a target of miR-34b-5p, which is not convincing.

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.

Not relevant to this manuscript

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Please indicate the quality of language in the manuscript:

Acceptable

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